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Covered California Annual Report

Covered California's Combined Annual Report to the Governor
and Legislature and Annual Fiscal Year 2019-20 Budget

FINAL

FISCAL YEAR 2019-20

June 26, 2019

Each year Covered California prepares an annual budget and report that is subject to board review and approval, informs the public on the way funds were expended and details the planned spending for the upcoming fiscal year. The budget is comprehensive and sets out the most cost-effective and efficient level of resources that the organization needs to carry out its mission and goals. The budget process is based on established budget principles, processes and procedures to provide the highest levels of fiscal integrity, accountability, transparency and accuracy.

Covered California is also required, pursuant to Section 100503 of the government code, to prepare an annual report to the governor and the Legislature which focuses on the implementation and performance of the agency's functions during the preceding fiscal year, including, at a minimum, how funds were expended, and the progress toward and achievement of the program requirements.

In this approved Covered California Annual Report: Fiscal Year 2019-20, both the annual report to the governor and Legislature and the annual budget book are merged into one document, which reflects the summary of final actual expenditures for fiscal year 2017-18, a detailed summary of the results of the open enrollment for the 2018 coverage year, preliminary financial reporting for fiscal year 2018-19, details on programmatic activities, and the annual approved budget.



July 1, 2019

Governor Gavin Newsom and Members of the California Legislature:

On behalf of the governing board of Covered California, and pursuant to Government Code Section 100503, I am pleased to present this report to the Governor and the Legislature which details Covered California's achievements and activities during fiscal year (FY) 2018-19 and lays out the budget for FY 2019-20 as adopted by the board at its June 26, 2019 meeting.

As we look to the future, California is building on the success of the Affordable Care Act by taking actions at the state level to counter federal actions that have contributed to market instability and uncertainty. These state actions include reinstating the requirement for those who can afford coverage to get it; increasing the amount of financial support for low-income consumers; and, making history by offering subsidies to many middle-income consumers who were previously ineligible for assistance. As a result of these bold actions by state leaders, California is protecting and building on a law that has benefitted millions of people and bringing quality care and coverage within reach of even more consumers.

In the just completed fiscal year, FY 2018-19, Covered California continued its history of service by putting consumers first and giving them broad choice of health plans and benefits that were there for them when they needed them. We maintained Covered California's stability and financial strength – with no expenditure of state general funds – while reducing the assessment fee on health plan premiums and continuing to invest more than \$100 million in marketing and outreach to promote enrollment.

For the coming fiscal year, FY 2019-20, Covered California's budget reflects its ongoing commitment to holding health plans accountable, promoting enrollment, and making the market work for California's consumers. The new state initiatives will mean that hundreds of thousands more Californians will benefit from having insurance.

Covered California remains committed to improving access to quality and affordable care and looks forward to working with the Governor, the Legislature and many others throughout the state to both protect and improve upon the Affordable Care Act and continue to strive toward universal coverage.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter V. Lee", is written over a light blue horizontal line.

Peter V. Lee
Executive Director

Covered California Board and Senior Executive Management

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Division Director

Mavilla Safi
Service Center
Division Director

Colleen Stevens
Marketing
Division Director

Covered California Annual Report: Fiscal Year 2019-20

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I. Executive Summary

Covered California enters fiscal year (FY) 2019-20 on solid financial footing with an eye toward the future, and a new state subsidy program that will provide new financial help to people hit hardest by rising health care prices, including many middle-class Californians who earned too much to qualify for assistance before.

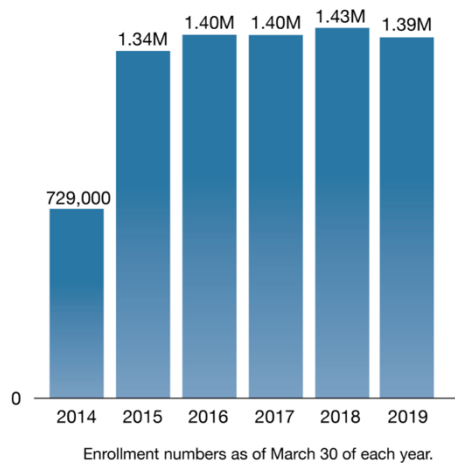
Since first opening its doors in 2014, Covered California has worked with Medi-Cal to dramatically improve access to quality health care in the state. More than 4 million people have been insured for at least one month directly through Covered California and more than 3.8 million people are currently enrolled in Medi-Cal due to the Patient Protection and Affordable Care Act expansion.¹ Millions more have purchased identical coverage directly from Covered California’s 11 carriers on the “off-exchange” individual market.



While the agency remains well situated to continue its mission to increase the number of insured Californians, improve health care quality, lower costs and reduce health disparities across California, the combination of uncertainty and questionable policy decisions at the federal level have had clear negative impacts on California.

Specifically, the federal decision to remove the individual mandate penalty as of the 2019 coverage year likely contributed to a 23.8 percent drop in the number of new consumers signing up with Covered California and potentially hurting the risk mix.

Figure 1: Covered California Active Enrollment



As a result, after watching its growth nearly double, from 728,730 in March 2014 to 1.43 million in March 2018, Covered California’s active enrollment dipped to 1.39 million in March of 2019 (See *Figure 1: Covered California Active Enrollment*).

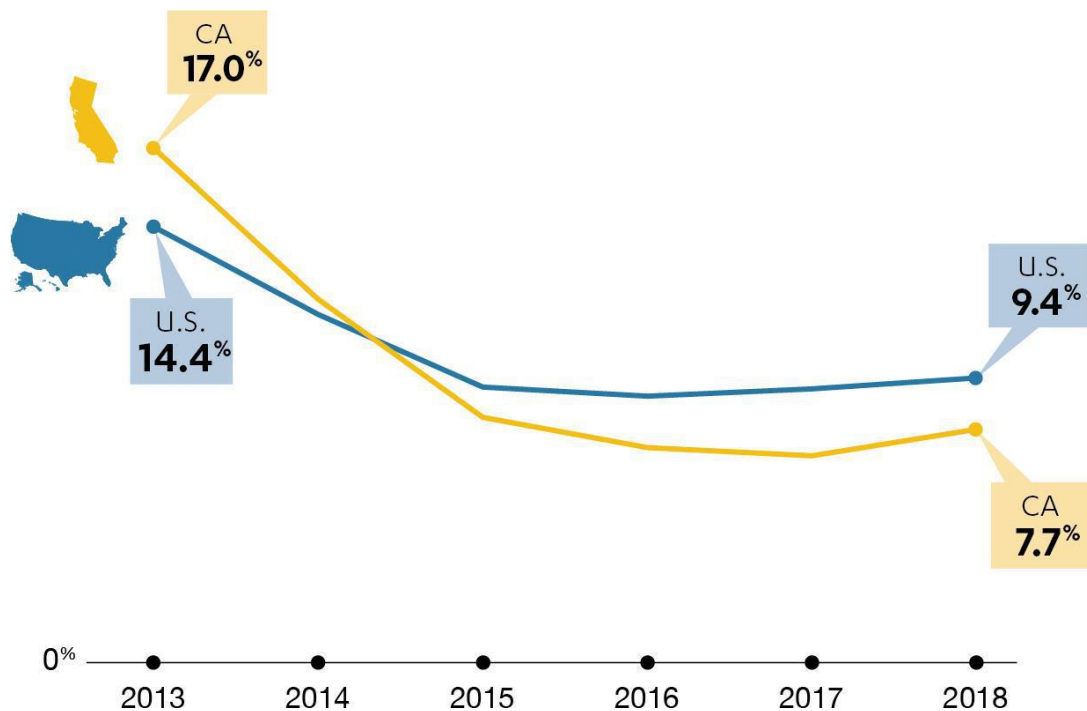
In addition, after reaching a historic low, the Centers for Disease Control and Prevention found that California’s uninsured rate jumped from 6.8 percent in 2017 to 7.7 percent in 2018², meaning that thousands more Californians are now at risk of putting off

¹ Medi-Cal at a Glance, Nov. 2018 - https://www.dhcs.ca.gov/dataandstats/statistics/Documents/Medi-Cal_at_a_Glance_Nov2018.pdf

² Centers for Disease Control, May 2019 - <https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201905.pdf>

needed health treatments, and risking significant medical bills or even personal bankruptcy if they get sick or injured (See *Figure 2: Comparing California's Uninsured Rate to the Nation*).

Figure 2: Comparing California's Uninsured Rate to the Nation



As we look ahead to the balance of 2019 and beyond, the decisions at the federal level continue to present challenges to the individual market in California and across the country. Consumers have already been negatively affected by the removal of the penalty, particularly those in the middle class who do not receive any financial help. For plan year 2019 alone, carriers increased their premiums by 2.5 to 6 percent. Covered California believes the higher than necessary premiums will lead to consumers paying an estimated \$400 million more on their health care coverage in 2019.

In marked contrast to the federal uncertainty and retreat from core protections of the Affordable Care Act, California is once again leading the way to make health care coverage more available and affordable. Governor Gavin Newsom and the state legislature have agreed to provide new state subsidies to eligible Californians, particularly those in the middle class who are currently just above the federal cutoff for financial help, and institute a state-level mandate that would encourage people to get covered for the 2020 coverage year. These new policy initiatives provide the context as Covered California enters a new fiscal year.

Covered California’s Operating Budget

Covered California’s operating budget for FY 2019-20 provides \$379.1 million to carry out its mission which represents an increase of \$38.9 million, or 11.4 percent, over the amount budgeted for the previous fiscal year (see *Table 1: Covered California’s Multi-Year Financial Forecast Base Enrollment Estimate*).

Table 1
Covered California’s Multi-Year Financial Forecast Base Enrollment Estimate
(Dollars in Millions)

<i>Dollars in Millions</i>	<i>FY 2018-19</i> <i>Approved</i> <i>Budget</i>	<i>FY 2018-19</i> <i>Projected</i> <i>Actuals</i>	<i>FY 2019-20</i> <i>Projected</i>	<i>FY 2020-21</i> <i>Projected</i>	<i>FY 2021-22</i> <i>Projected</i>
Effectuated Enrollment (fiscal year end)	1,201,447	1,362,052	1,595,887	1,646,057	1,676,695
Opening Reserve Balance	\$313.6	\$325.6	\$347.2	\$343.0	\$360.1
Plan Assessments-Cash Basis	\$351.1	\$371.7	\$394.9	\$435.2	\$441.7
Projected Operating Expenditures	(\$340.2)	(\$320.0)	(\$379.1)	(\$398.1)	(\$418.0)
Margin Contribution - Cash Basis	\$10.9	\$51.7	\$15.8	\$37.1	\$23.8
Capital Projects Reserve	(\$10.0)	(\$30.0)	(\$20.0)	(\$20.0)	(\$20.0)
Year-End Operating Reserve	\$314.5	\$347.2	\$343.0	\$360.1	\$363.9
<i>Number of months of reserve</i>	<i>10.9</i>	<i>11.0</i>	<i>10.3</i>	<i>10.3</i>	<i>10.4</i>

In addition, Covered California’s budget reflects the projected enrollment and revenue impact of the new state initiatives. In conjunction with experts, Covered California projects 1.6 million Californians will be enrolled for coverage through Covered California at the “Base level” at the end of FY 2019-20, with high retention and the increase due to affordable coverage options, the new state subsidies, and the restoration of the individual mandate.

Covered California stands ready to protect consumers going forward and, as always, is operationally funded entirely by the fees it collects from health plans. Covered California will continue to stand on its own, with enough cash reserves to allow it to remain nimble, quickly adapt to any potential challenges and make prudent investments that serve California’s consumers.

Accomplishments of FY 2018-19

Covered California successfully navigated a fiscal year where the budget, individual market enrollment and revenue projections were all developed in a climate of considerable uncertainty at the federal level. Congress passed the Tax Cuts and Jobs Act of 2017, which zeroed out the individual mandate penalty, led to higher premiums for 2019, and moved to promote the sale of association and short-term limited duration health plans, which did not comply with the Affordable Care Act and threatened to weaken the individual market.

While California’s state leaders banned short-term plans, Covered California responded with aggressive and targeted investments in marketing and outreach to promote enrollment and retain consumers. The Covered California board approved a budget of

\$350.2 million for FY 2018-19, including an operating budget of \$340.2 million which contained \$107 million for Marketing, Outreach/Sales and Other and \$105 million for our Service Center and the establishment of a new Customer Care Division.

The budget also called for 1,399 positions to enroll Californians in coverage, provide a better consumer experience to applicants and enrollees, retain current enrollees and provide the tools to deliver on our mission.

In addition, the agency invested in its future by earmarking \$10 million for a Capital Projects Reserve fund. FY 2018-19 is projected to end with \$320 million in expenditures, compared to the approved operating budget of \$340.2 million. The remaining \$20.2 million in unspent funds of the operating budget will be transferred to the capital projects reserve.

Major investments for the approved FY 2019-20 budget include:

- **Supporting new California initiatives:** Covered California has been deeply engaged with providing technical assistance to the governor and the Legislature to develop and implement new state initiatives including new subsidies for many middle-class Californians and enacting a state penalty for consumers opting out of coverage. In the coming year, Covered California will be operationalizing these policy initiatives requiring significant technology, training and outreach investments.

- **Marketing and outreach:** Covered California will continue its extensive marketing and outreach investments which have helped it achieve one of the best take-up rates and lowest risk scores in the nation. The budget for FY 2019-20 includes \$121 million for marketing and outreach, which includes a \$6.5 million navigator program and \$55 million for paid media efforts. The budget also includes \$115.4 million for our Service Center and Consumer Experience divisions.



Examples of Covered California's marketing investments.

- **Holding health plans accountable and promoting better care:** Each year, Covered California negotiates with its contracted health plans and holds them accountable for having the lowest possible premiums, delivering the right care at the right time and promoting changes in health care delivery. These efforts benefit both those who enroll through Covered California and approximately 700,000 Californians who purchase directly from these carriers on the individual

market. In the coming year, Covered California will complete a refresh of its contractual requirements on health plans – to take effect in 2021 – which will include a national review of evidence, an assessment of other purchasers’ strategies, engagement with stakeholders and a review of quality and performance measures.

- **Building on Covered California’s patient-centered benefit designs:** Health plans in California offer common patient-centered benefit designs that mean they are competing for consumers based on factors well understood by consumers, such as cost, plans’ philosophies and which doctors and hospitals are included. In addition, these designs mean that services such as physician visits, lab tests and prescription drugs are not subject to a deductible for most consumers. In the coming year, Covered California plans to build on these designs to promote coverage for consumers with chronic conditions through advanced “value-based insurance designs” that include no or lower deductibles to promote their adherence to treatment plans.
- **Data analytics: assuring quality and equity:** Covered California continues to build its infrastructure to identify and develop strategies to assess the quality of care provided to all consumers, with a focus on assessing the extent to which some consumers may receive differences in care or health outcomes based on their race, ethnicity, gender, income or other factors. Covered California’s Healthcare Evidence Initiative has data encompassing all care and services provided to its enrollees since 2014 which is increasingly generating actionable information.
- **New internal investments to promote efficiency:** Covered California is investing in a range of information technology solutions to make its operations more efficient, including a Human Capital Management Solution to automate manual and paper-based Human Resources processes that are time consuming and prone to errors, causing incorrect and inefficient distribution of information and costly rework. In addition, Covered California is doing a major review of its lease and space planning to ensure that it is making appropriate long-term decisions.

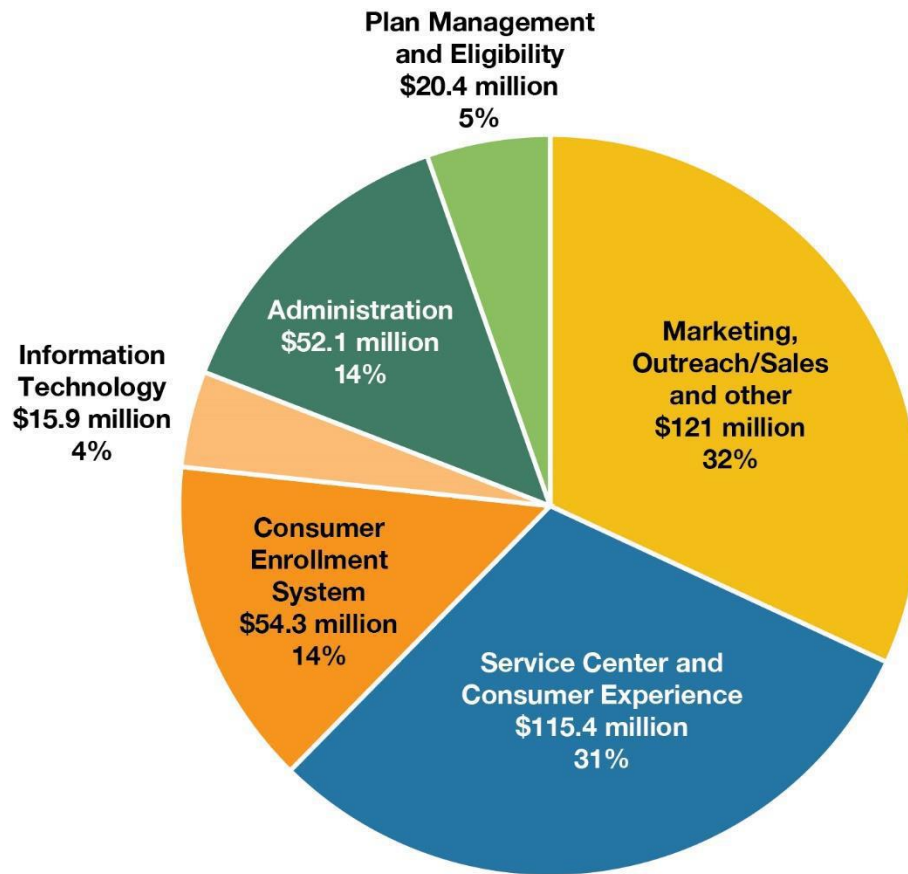
Financial highlights for the approved FY 2019-20 budget include:

- **Operating budget:** Covered California’s \$379.1 million budget will fund investments in marketing, outreach and customer service that are needed to promote a stable market with a good risk mix to keep premiums as low as possible. Doing so reduces the cost of coverage for all Californians, especially those who do not receive subsidies (see *Figure 3: Covered California’s Approved FY 2019-20 Operating Budget*).
- **Financial stability:** Covered California expects to begin FY 2019-20 with approximately \$350 million in reserves, the equivalent of 11 months of planned

operating expenditures. These reserves give Covered California capacity to adapt to new program requirements should there be significant changes in federal or state policy. In addition, Covered California projects it will end the current fiscal year with \$40 million in its capital reserve account to fund future facility needs.

- **Enrollment and revenue projections:** The enrollment and revenue projections that support this budget are informed by the analyses of health insurance experts. In addition to providing estimates of the impact to enrollment of California's recently enacted healthcare affordability programs that created a state individual mandate penalty and improve affordability for low – and middle-income Californians, they also assessed the impact of California's rising minimum wage and population.
- **Self-funded organization:** Covered California is funded entirely by a percentage assessment on health plan premiums. The budget for FY 2019-20 reflects the assessment fee rate for plan year 2020 being reduced to 3.5 percent of premiums from the 3.75 percent assessment levied in 2019. Since the cost of these assessments is spread across the entire individual market — both on-exchange enrollment and the off-exchange enrollment into mirrored products that consumers purchase directly from Covered California's 11 carriers — this assessment fee rate will equate to an assessment of about 2.3 percent on all premiums in the individual market in 2020. This assessment reflects far lower costs to health insurers than they previously spent to enroll and retain members prior to Covered California, which fosters lower premiums and contributes to a healthier risk mix.

Figure 3:
Covered California's Approved FY 2019-20 \$379.1 Million Operating Budget



This budget details how Covered California's policies put consumers first, focusing on ensuring that they have good products that will provide high-quality care when they need it. Covered California will continue to make significant investments in marketing and outreach, recognizing that health insurance is a product that needs to be actively sold to consumers.

II. Covered California’s Vision and Strategic Pillars that frame Budget Priorities

California’s mission is to improve health care quality, lower costs and reduce health disparities through an innovative, competitive marketplace that empowers consumers to choose the health plan and providers that give them the best value.

Vision:

To improve the health of all Californians by assuring their access to affordable, high-quality care.

Mission:

To increase the number of insured Californians, improve health care quality, lower costs and reduce health disparities through an innovative, competitive marketplace that empowers consumers to choose the health plan and providers that give them the best value.

The budget reflects Covered California’s strategic plan and priorities for the upcoming year. It is based on established budget principles and procedures that provide the highest levels of fiscal integrity, accountability, transparency and accuracy to allow Covered California to meet its goals and carry out its mission.

The budget is built on a comprehensive planning process, which is guided by a set of strategic pillars, to determine the most effective way to improve the health of all Californians by ensuring their access to affordable, high-quality care.

Covered California’s strategic pillars were designed by the agency’s management team and reviewed by the board to guide the organization while making decisions, setting priorities, determining initiatives and preparing annual budgets.

Programmatic examples of how the budget and work plan reflects a focus on the five areas of strategic focus and the three cross-cutting priorities that guide Covered California’s work, are detailed in the pages that follow.

Covered California 2019-20 Strategic Pillars and Cross-Cutting Initiatives

AFFORDABLE PLANS	NEEDED CARE	EFFECTIVE OUTREACH AND EDUCATION	POSITIVE CONSUMER EXPERIENCE	ORGANIZATIONAL EXCELLENCE
Consumers purchase and keep Covered California products based on their perception that this is a good value for them.	Consumers receive the right care at the right time.	Consumers understand what we offer and have a positive attitude about Covered California.	Consumers have a positive experience from initial enrollment to keeping their coverage.	Covered California has the right tools, processes, and resources to support our team to deliver on our mission.

CROSS-CUTTING AREAS OF ATTENTION

Innovating for the long term and being nimble in the present.

Using Covered California's experience to inform policy in California and nationally.

Working with others to promote changes in care delivery that benefits all Californians.

- **Affordable Plans:** Consumers purchase and keep Covered California products based on their understanding of how their coverage is a good value for them.

Broad Strategy

- Actively negotiate rates and benefits with carriers to provide consumers with the best value.
- Invest in marketing and outreach to promote the value of coverage and maintain a healthy risk mix.
- Offer patient-centered benefit designs to make care more affordable by increasing a consumer's understanding of benefits that maximize access to appropriate care.

Enhancements for Fiscal Year 2019-20:

- Utilization of an analytical database tool, which reflects five years' worth of experience, that will help prevent and quickly identify fraud, waste and abuse and protect consumers, reduce costs resulting from fraudulent activities and promote Covered California as a trusted source of access to health care.
- Additional resources within the Outreach and Sales Division will go toward ensuring consumers are properly educated on plan selections and are

provided effective enrollment assistance. This helps support Covered California's goal of creating a brand that consumers can identify with and grow to trust in order to increase enrollment and retain consumers once enrolled.

- Additional resources will go toward combining the functions and services of Covered California for Small Business (CCSB) and the Agent Service Center with the goal of CCSB achieving financial sustainability by FY 2021-22, as well as the ongoing development of CCSB's employer, agent and general agent portals to provide better customer service.
- **Staying Healthy and Getting Needed Care:** Consumers receive the right care at the right time.

Broad Strategy

- Work with all contracted qualified health plan issuers, in every corner of the state, to ensure consumers have ready access to doctors, hospitals and care.
- Hold health insurance companies accountable for improving the care delivered, addressing disparities of care and moving to a patient-centered system that rewards quality and value, rather than being rewarded for quantity only.

Enhancements for Fiscal Year 2019-20:

- Expand efforts to promote improvements in care delivery through clinical, enrollment and qualitative survey data to identify opportunities to promote change.
- Additional resources within the Plan Management Division to operationalize a more detailed and proactive performance-monitoring function. The function will enable development of new standards that incorporate the latest understanding of successful approaches to improve cost and quality, with greater alignment and coordination with other purchasers and the provider community.
- **Effective Outreach and Education:** Consumers understand what we offer and have a positive attitude about Covered California.

Broad Strategy

- Make significant investments in marketing and outreach to motivate consumers to enroll and maintain their insurance coverage.
- Educate and support Covered California's 20,000 sales partners in order to promote enrollment and increase the number of insured Californians.

Enhancements for Fiscal Year 2019-20:

- The budget includes \$121 million for marketing and outreach and focuses on increasing capacity in the Marketing Division to maintain and improve Covered California's social media presence and effectiveness and maximize our investment in digital platforms.
- Focuses on sales strategies, direct support to the sales channels and strategic partnerships in diverse communities throughout the state to develop new and innovative ways to connect consumers to coverage. Oversee the administration, system and analytic operation functions to ensure sales channels are equipped to assist and enroll consumers while meeting their contractual requirements.
- **Positive Consumer Experience:** Consumers have a positive experience from initial enrollment to keeping their coverage.

Broad Strategy

- Operate and staff service centers and work with 20,000 Certified Insurance Agents, enrollers and navigators to assist consumers in a variety of languages.
- Ombuds Office established to help consumers as needed.

Enhancements for Fiscal Year 2019-20:

- Investing in information technology to stay on the cutting edge of technologies that benefit consumers. Mobile website design allows consumers to use all features on any device.
- Conducting consumer journey mapping as the first stage of a customer-centric service-improvement process from a customer's point of view and experience.
- Continued investments in workforce management and quality assurance solutions to ensure the Service Center is aligned with industry best practices, with the necessary tools to ensure that the consumer's needs are being met.
- **Organizational Excellence:** Covered California has the right tools, processes and resources to support its team to deliver on our mission.

Broad Strategy

- Operate as a nimble enterprise that responds quickly to the changing environment in health care.
- Implement and support Healthier U, a program designed to improve the health and wellbeing of state employees; an employee recognition

program to create a culture of acknowledgement; and a career development program to help staff prepare for career advancement at Covered California.

Enhancements for Fiscal Year 2019-20:

- Adding resources in Business Services Branch for lease space planning services, which will allow Covered California to be more agile with space needs and design.
- Automation software to streamline budgeting and planning efforts and management reporting needs while providing a transparency solution on financial data to the rest of the department.
- Implementation of a human-capital management solution to reduce costs through the automation of manual paper processes that are time consuming, an inefficient distribution of information and costly.

These five pillars are supported and complemented by the following crosscutting initiatives:

- **Innovating for the long term and being nimble in the present.**
 - Consumer journey mapping will inform efforts to continue to build consumer trust and loyalty, increase consumer growth and retention, elevate Covered California’s brand and facilitate a transparent and aligned model of operational excellence.
 - A consolidated enterprise information technology backup and disaster recovery solution will be easier to manage and meet business continuity objectives in the event of a disaster.
- **Using Covered California’s experience to inform policy in California and nationally.**
 - Covered California has worked with stakeholders and economists to develop options to improve affordability for low- and middle-income consumers and increase the number of people insured in the state. Covered California will build on the work reflected in the report, [“Options to Improve Affordability in California’s Individual Health Insurance Market,”](#) to examine how consumers would benefit from different approaches, as well as the costs required and their impact on the individual market.
 - Covered California actively seeks opportunities to contribute to the policy-making discussions in California and Washington D.C. by sharing our experiences and analysis of how policy issues could affect the individual market and health care costs and quality more broadly.

- Covered California learns from and shares its experiences with other state-based marketplaces, academic institutions and private and public partners to practice evidence-based policy development.
- **Working in partnership with others to promote changes in care delivery that benefit all Californians.**
 - Expanding program oversight of quality standards and increasing engagement with carriers to develop programs that will improve the delivery and quality of health care to our consumers.
 - Covered California has interviewed national and state purchasers to consider how its contractual expectations of carriers can be aligned with others to promote more rapid and targeted changes in the delivery system to foster quality improvement and cost reductions.

III. Covered California's FY 2018-19 Budget Highlights and Projected Year-end

The Covered California board-approved budget for FY 2018-19 of \$350.2 million included an operating budget of \$340.2 million and 1,399 positions, as well as \$10 million to fund the Capital Projects Reserve, to enroll Californians in coverage, provide a better consumer experience to applicants and enrollees, retain current enrollees and provide the tools to deliver on our mission.

The budget featured the following activities:

- Aggressive investments in marketing and outreach to promote enrollment and retain consumers, which included \$107 million for Marketing, Outreach/Sales and Other, and \$105 million for our Service Center and the establishment of a new Customer Care Division.
- Continued funding for the consumer enrollment system, the California Healthcare Eligibility, Enrollment and Retention System (CalHEERS) — the information technology platform to enroll consumers shared with the California Department of Health Care Services — to support the FY 2018-19 program requirements of the CalHEERS road map.
- Continued investments in the capital projects reserve, intended for capital assets that are facility related.

FY 2018-19 is projected to end with \$320 million in expenditures, compared to the approved operating budget of \$340.2 million. The remaining \$20.2 million in unspent funds of the operating budget are approved to be transferred to the capital projects reserve (see *Section VIII: Covered California's FY 2019-20 Capital Projects Budget for more details*).

Table 2
FY 2018-19 Approved Budget Versus Projected Actuals – With Revenue
(Dollars in Millions)

	FY 2018-19 Approved Budget	FY 2018-19 Projected Actuals
Effectuated Enrollment (fiscal year end)	1,201,447	1,362,052
Opening Reserve Balance	\$313.6	\$325.6
Plan Assessments-Cash Basis	\$351.1	\$371.7
Projected Operating Expenditures	(\$340.2)	(\$320.0)
Margin Contribution - Cash Basis	\$10.9	\$51.7
Transfer to the Capital Projects Reserve	(\$10.0)	(\$30.0)
Year-End Operating Reserve	\$314.5	\$347.2
Number of months of reserve	10.9	11.0

For FY 2018-19 Covered California is projected to collect \$371.7 million in revenue from individual medical, dental and Covered California for Small Business assessment fees compared to \$351.1 million projected in the Base Enrollment estimate from the budget. Due to strong enrollment at the end of the prior year, the 2018-19 fiscal year began with individual medical enrollment that was 26,000 higher than budgeted. In addition, the December reenrollment rate was higher than anticipated as more consumers stayed with their existing plans. This more than offset the reduction of new enrollment during open enrollment for 2019. Covered California for Small Business enrollment and revenue also exceeded budget throughout the year (see *Table 2: FY 2018-19 Approved Budget Versus Projected Actuals- With Revenue*).

Table 3
FY 2018-19 Approved Budget Versus Projected Actual Expenditures by Major Area
(Dollars in Millions)

	Budget	Projection	Variance
Marketing, Outreach/ Sales & Other	107.4	96.6	(10.8)
Service Center & Consumer Experience	102.0	95.8	(6.2)
Technology	70.1	68.9	(1.2)
Administration	44.2	42.5	(1.7)
Plan Management & Eligibility	16.5	16.1	(.4)
Total	\$340.2	\$320.0	(\$20.2)

Marketing, Outreach/Sales and Other: Projected expenditures of \$96.6 million for these programs in FY 2018-19 are \$10.8 million lower than budgeted, primarily due to lower than expected contract expenditures.

Service Center and Consumer Experience: Projected expenditures of \$95.8 million for FY 2018-19 are \$6.2 million lower than originally budgeted, primarily due to the cost

savings associated with appeals adjudication workload and salary savings in the Service Center and Customer Care Division.

Technology: FY 2018-19 projected expenditures of \$68.9 million are \$1.2 million lower than budgeted. While expenditures for CalHEERS, including the Statewide Automated Welfare System (SAWS) interface, are expected to come in at budget, expenditures for the Information Technology Division are projected to be \$1.2 million lower primarily due to savings associated with the transition from the Oracle to Salesforce Customer Relationship Management (CRM).

Administration: Projected expenditures of \$42.5 million are \$1.7 million lower than the FY 2018-19 budget largely due to contract savings in the Office of Legal Affairs, Financial Management Division, and the Administrative Services Division. Areas of savings include litigation support, premium accounting services, facility operations and legal consulting and administrative hearing services.

Plan Management and Eligibility: FY 2018-19 projected expenditures of \$16.1 million are \$400,000 lower than budgeted. Leveraged savings in the Policy, Eligibility, and Research Division in personal services and consulting services helped to fund continued work on health plan quality improvement strategies in the Plan Management Division.

IV. Covered California’s Enrollment and Revenue Forecast

“Covered California’s FY 2018-19 individual market enrollment and revenue projections were developed in a climate of considerable uncertainty.”

— Covered California Fiscal Year 2018-19 Budget

The enrollment and revenue projections for Covered California’s FY 2019-20 budget reflect the recently enacted health care affordability programs. These programs create a state individual mandate and penalty and improve affordability for low- and middle-income Californians. Notable outside experts have provided extensive analysis of the likely effect that these will have on individual health care coverage, which inform Covered California projections.

In the 2019-2020 legislative session, Governor Newsom and the Legislature enacted subsidies and the individual shared responsibility mandate. These will result in lower premium increases for all Californians in the individual market and will make premiums more affordable for most enrollees who are currently eligible for federal premium tax credits and for many people whose income falls between 400 and 600 percent of the federal poverty level (FPL). Households with incomes above 400 percent of FPL do not qualify for any federal premium subsidies under current law. The affordability plan adopted by California will fully subsidize the cost of the standard premium for eligible enrollees below 138 percent of FPL and will cap benchmark premium contributions on a sliding percentage of income scale for eligible Californians above 200 percent of FPL. This change extends the tax credit and provides assistance to consumers up to 600 percent of FPL. It lowers the premium contribution cap for a benchmark plan for consumers who currently qualify for federal advance premium tax credits, thereby inducing new enrollment among the uninsured and improving affordability for consumers. These policies will make coverage more affordable for a larger segment of Californians and will reduce the size of the uninsured population.

The estimated impact of the individual shared responsibility mandate and expanded financial assistance is that more Californians will get insurance, and there will be an increase in on-exchange enrollment, including a switch of some currently insured “off-exchange” enrollees to Covered California. It is estimated that there will be a moderation of the expected increase in premiums.

To continue making progress in making health care more affordable, the enacted State Budget creates subsidies for individuals with incomes below 138 percent FPL and those between 200 and 400 percent of the FPL. It also provides subsidies to many individuals with incomes between 400 and 600 percent of FPL, effective January 1, 2020.

The individual shared responsibility mandate is a requirement for California residents to obtain comprehensive health care coverage for each month beginning on or after January 1, 2020 or pay a penalty consistent with the federal penalties originally outlined under the federal Affordable Care Act.

The Franchise Tax Board (FTB) will implement and collect the revenues associated with the state individual mandate, and Covered California will administer the new state subsidies in accordance with the approved program design. Covered California will grant exemptions from the state mandate for reason of hardship or religious conscience based on established processes for determining eligibility for an exemption. Covered California will notify the enrollee and FTB of the determination.

The subsidy payments for consumers would be funded through annual state General Fund appropriations of \$428.6 million in FY 2019-20, \$479.8 million in FY 2020-21 and \$547.2 million in FY 2021-22. The appropriation for subsidy payments for consumers does not increase Covered California's operating budget, augment the California Health Trust Fund, change the agency's status as an independent public entity, or impede the board's authority to authorize expenditures from the California Health Trust Fund to pay program expenses to administer operations.

The appropriations will support approximately \$5 million per year for state subsidies to individuals below 138 percent of FPL, which will fully cover the cost of the standard premium for this group of individuals. Approximately \$80 million will augment federal subsidies for individuals between 200 and 400 percent of FPL. The remaining funding will be used to provide additional subsidies to individuals between 400 and 600 percent of the FPL who do not currently receive federal subsidies.

Covered California Forecast Enrollment Projections

Covered California's FY 2019-20 Base budget enrollment and revenue forecast is informed by analyses completed by economists Wesley Yin, University of California at Los Angeles, and Nicholas Tilipman, University of Illinois at Chicago, along with Covered California staff. Using a microsimulation model to estimate how changes in premiums and subsidies affect consumer enrollment and plan choice decisions, they have estimated the potential impacts of these subsidies and the mandate penalty on both Covered California's enrollment and the cost to the state of providing these subsidies.

These estimated gains in enrollment are the dominate factor in near-term enrollment projections. The Base enrollment forecast reflects an incremental gain of 300,000 new enrollees as estimated by Yin and Tilipman’s analyses. Their estimates conclude that in 2020, the subsidies and the mandate penalty could lead up to 188,000 currently uninsured Californians to obtain coverage. About 900,000 Californians would be eligible for state subsidies. Additionally, as many as 118,000 who are currently covered by off-exchange policies would transition to on-exchange policies. In 2020, subsidies worth over \$420 million would be paid. The average monthly subsidy would be \$10 for eligible enrollees earning between 200 and 400 percent of the FPL, \$19 for those earning less than 138 percent of the FPL, and \$119 for those earning between 400 and 600 percent of the FPL.

In contrast, the high, or optimistic, alternative enrollment forecast assumes a slightly better (5 percent) incremental gain from the new programs. It further assumes that the improvement in the monthly disenrollment and annual nonrenewal rates seen in recent years continues into 2020.

The low, or pessimistic, enrollment alternative reflects an assumption that only two-thirds, or 200,000 of the estimated enrollment gains materialize in 2020. In addition, it assumes that, rather than improving, the monthly disenrollment and annual nonrenewal rates revert back to the lowest levels experienced in recent years.

Covered California Forecast Premium Projections

Premium trends for policies sold through Covered California have a direct impact on its revenues. The premium projections used in this forecast consider a number of factors, including medical cost trends, expected enrollment and policy and law changes.

All three alternatives assume that future premiums will escalate in line with long-run medical cost trends — 7 percent per year on average — along with a 1.6 percent increase in 2020 from the imposition of the Health Insurance Providers Fee. Congress approved a one-year moratorium on collecting the Health Insurance Providers Fee for 2019. It is scheduled to be levied in 2020, which would boost premiums 1.6 percent. The base scenario assumes that the expected incremental enrollment gain from the new subsidies and the mandate penalty will dampen premium increase by 4 percentage points. The estimated enrollment impact of the high and low scenarios slow premium growth by 6 and 2 percentage points respectively (*see Table 4: Projected Premium Growth Rates*).

Table 4
Projected Premium Growth Rates³

Scenario	2019	2020	2021	2022
	Actual	Projected	Projected	Projected
High	7.7%	2.6%	7.0%	7.0%
Base	7.7%	4.6%	7.0%	7.0%
Low	7.7%	6.6%	7.0%	7.0%

Table 5
Individual Market Enrollment and Revenue Forecasts

Effectuated Enrollment
(Fiscal Year End)

Scenario	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
High	1,370,413	1,678,880	1,797,510	1,887,563
Base	1,362,052	1,595,887	1,646,057	1,676,695
Low	1,361,251	1,460,054	1,408,488	1,373,395

Plan Assessments-Cash Basis
(Dollars in Millions)

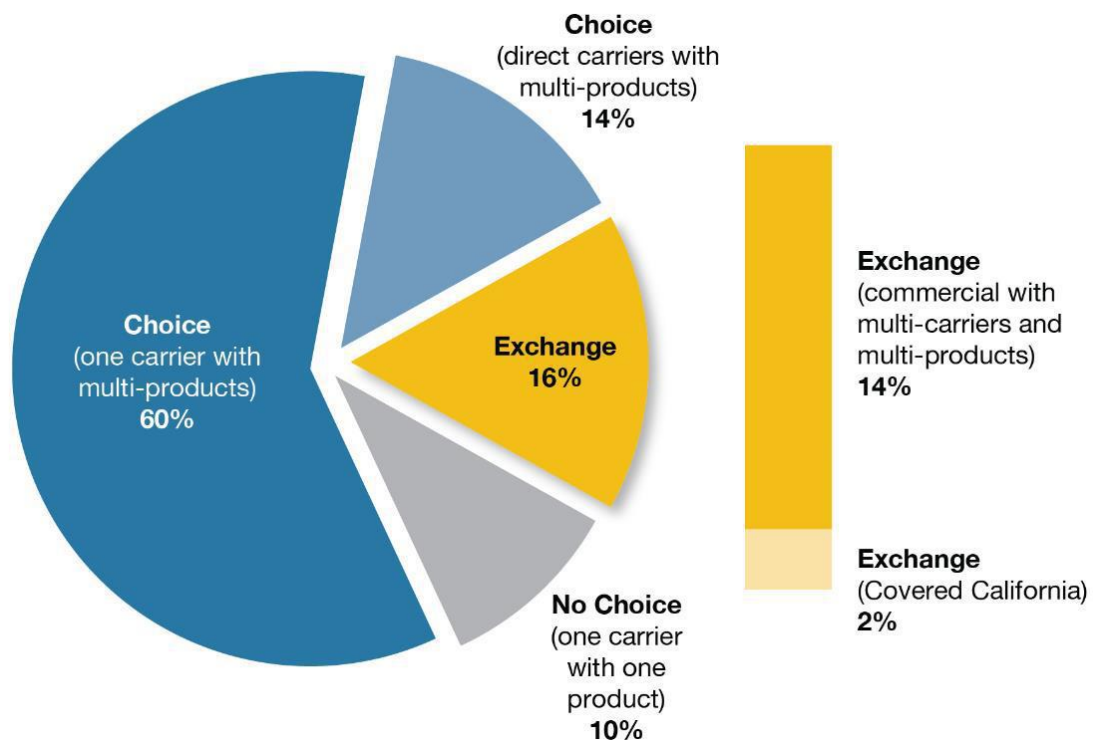
Scenario	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
High	\$357.1	\$385.1	\$435.6	\$455.7
Base	\$357.0	\$377.6	\$415.0	\$418.5
Low	\$357.0	\$367.6	\$374.7	\$357.0

³ These forecasts project that premiums would grow at these average rates across all carriers. These "average" increases would likely reflect a range of increases among Covered California's contracted health plans — with individual carriers likely varying from the estimate by plus or minus 2 to 5 percentage points. These assumptions reflect premiums for policies sold in California and are not indicative of growth rates expected in other states.

Covered California for Small Business Forecast

The FY 2019-20 enrollment and revenue forecast for Covered California for Small Business (CCSB) considers both market conditions and current and future product mix offerings. Approximately 2.4 million Californians are covered in the small-group health insurance market. Nearly 90 percent of them have access to some form of plan choice because either the employers offer one carrier with a choice of products or they offer more than one carrier with a choice of products. The choice of products category that reflects multiple carriers is further split into purchases directly from more than one carrier and purchases from an exchange. Currently the “exchange market” accounts for 16 percent of the overall small-group market share and of that market CCSB now represents 12.5 percent. Having five carriers, two of them among the largest in the state, CCSB accounts for more than 2 percent of the overall California small business market (see *Figure 4: Share of Enrollment in the California Small Group Market in 2018*).

Figure 4
Share of Enrollment in the California Small Group Market in 2018



December 2018 CCSB enrollment reached over 50,000 consumers and is projected to reach 60,000 consumers by the end of FY 2019-20 as per the Base forecast discussed below.

Covered California for Small Business Forecast Assumptions

The **Base** scenario assumes that enrollment in the small group market will remain flat in FY 2019-20, but within the small group market companies that offer multi-carrier with multi-products segment will continue to grow. The exchange market is forecasted to grow to about 25 percent in new sales in the small group segment by 2022 and CCSB expects to garner a fair share of growth by continuously improving the selection of products offered, carrier choices and improvements to distribution and administration processes.

The **High** enrollment scenario assumes the small-group market will grow at a rate of 1.5 percent to 2 percent through 2022. This is comparable to the growth rate achieved over the past few years, driven by California’s new business growth and some groups moving from large group plans to the small group market (reflecting the expansion of CCSB to include employers with 51 to 100 employees). CCSB will continue to increase the product mix and services to achieve a larger share of the small-business exchange market.

The **Low** enrollment scenario assumes that the small group market declines by 1 percent per year due to adverse economic conditions. The scenario assumes the sales for exchange products will make up 5 to 7 percent of new sales and the CCSB share of the small business exchange market will drop to 11 percent by 2022 (see Table 6: Covered California for Small Business Enrollment and Revenue Forecasts).

Table 6
Covered California for Small Business Enrollment and Revenue Forecasts

Effectuated Enrollment				
(Fiscal Year End)				
Scenario	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
High	54,194	63,565	74,681	86,794
Base	53,984	60,818	67,096	73,171
Low	53,577	56,896	58,248	58,546

Plan Assessments-Cash Basis				
(Dollars in Millions)				
Scenario	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
High	\$14.6	\$17.7	\$21.8	\$26.8
Base	\$14.6	\$17.3	\$20.2	\$23.2
Low	\$14.6	\$16.6	\$18.1	\$19.3

Revenue Summary

The Base revenue estimate that is used for this budget is illustrated below (see *Table 7: Assessment Fee Revenue – Cash Basis*).

Table 7
Assessment Fee Revenue – Cash Basis
(Dollars in Millions)

Medical Market	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
On-Exchange Individual Market	357.0	377.6	415.0	418.5
Covered California for Small Business	14.6	17.3	20.2	23.2
Total Assessment Fee Revenue	\$371.6	\$394.9	\$435.2	\$441.7

V. Multi-Year Forecast and Reserves

Covered California's budget development for FY 2019-20 is one component of an annual planning process that ensures the organization's efforts are focused on meeting our mission and strategic objectives, with appropriate revenues, expenditures and reserve levels over a multi-year period.

The planning process is steered by Covered California's guiding financial principles and ensures that the organization is both well positioned to fund its strategic objectives and to provide time to react should any adverse changes in the business environment occur.

Covered California's Guiding Financial Principles:

- The budget is a manifestation of Covered California's strategic plan for the upcoming year — based on established budget principles and procedures, providing the highest levels of fiscal integrity, accountability, transparency and accuracy — to meet its goals and carry out its mission.
- Develop a budget that directly supports growth and retention of membership.
- Ensure the assessment fee places the smallest possible burden on consumers' premiums, has a path for decreasing over time and reflects savings to health plans compared to prior acquisition costs.
- Continue to build infrastructure that can support talent, succession plans, business continuity and legal compliance, and reduce future costs.
- Continue to review programs to identify opportunities for efficiencies.
- The budget should enable Covered California to serve as an effective example of how marketplaces can improve the cost and quality of health care.
- Maintain a reserve that is sufficient to cover financial obligations and allows time to adjust revenue and expenditures in the event of unanticipated events.
- Remain financially nimble to assure the ability to transition should significant changes occur.

Covered California expects that it will begin FY 2019-20 with an operating reserve of approximately \$350 million, together with a reserve for capital projects of approximately \$40 million.

The multi-year forecast prepared in conjunction with the FY 2019-20 planning process reflects the results of Covered California's sixth open enrollment for plan year 2019. Although most expert analyses previously predicted significant decreases in enrollment from the impact of the federal removal of the mandate penalty, Covered California completed its 2019 open enrollment with total enrollment estimated at 1.4 million, higher than expected and only modestly decreasing from the previous open enrollment. While plan selections by new consumers during open enrollment were significantly lower than a year ago, the number of existing consumers staying enrolled in their health plan and renewing their coverage for 2019 increased over last year.

The approved budget for FY 2019-20 uses the Base enrollment estimate. Revenues, which include both the individual and CCSB markets, are calculated on a cash basis that reflects the actual timing of the collection of revenue (see *Table 8: Covered California Multi-Year Financial Forecast Base Enrollment Estimate*).

The Covered California: Multi-Year Financial Forecast Base Enrollment Estimate reflects the approved plan assessment of 3.5 percent of premium for 2020, which is subject to board adoption, and is a reduction from the current 3.75 percent of premium. The subsequent years reflect Covered California's plan to continue to reduce the plan assessment rate as a percentage of premium to 3 percent. These amounts are tentative and would be reviewed as part of the budget development and approval process for those years.

The multi-year financial forecast shows the estimate of how the plan assessment rate equates to a cost on a per-member per-month basis. This measure is an insurance industry standard that takes the assessment revenue projected for the year divided by the projected member months. By doing so, it provides a picture of Covered California's cost as part of the total premium dollars that is independent of the rising costs of health care. On a per-member, per-month basis, Covered California's plan assessment for FY 2019-20 equates to about \$14 when spread across both on-exchange policies and mirrored off-exchange policies, and \$21 if spread only across the on-exchange enrollment. Using the per-member, per-month basis, the multi-year forecast also reflects the annual change in the per-member, per-month costs on a year-over-year basis — projecting a decrease of 3.4 percent plan year 2019 and an increase of .47 percent for plan year 2020.

Table 8
Covered California
Multi-Year Financial Forecast Base Enrollment Estimate
(Dollars in Millions)

<i>Dollars in Millions</i>	<i>FY 2018-19</i>	<i>FY 2018-19</i>	<i>FY 2019-20</i>	<i>FY 2020-21</i>	<i>FY 2021-22</i>
	<i>Approved</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
	<i>Budget</i>	<i>Actuals</i>			
Effectuated Enrollment (fiscal year end)	1,201,447	1,362,052	1,595,887	1,646,057	1,676,695
Opening Reserve Balance	\$313.6	\$325.6	\$347.2	\$343.0	\$360.1
Plan Assessments-Cash Basis	\$351.1	\$371.7	\$394.9	\$435.2	\$441.7
Projected Operating Expenditures	(\$340.2)	(\$320.0)	(\$379.1)	(\$398.1)	(\$418.0)
Margin Contribution - Cash Basis	\$10.9	\$51.7	\$15.8	\$37.1	\$23.8
Capital Projects Reserve	(\$10.0)	(\$30.0)	(\$20.0)	(\$20.0)	(\$20.0)
Year-End Operating Reserve	\$314.5	\$347.2	\$343.0	\$360.1	\$363.9
<i>Number of months of reserve</i>	<i>10.9</i>	<i>11.0</i>	<i>10.3</i>	<i>10.3</i>	<i>10.4</i>

Plan Year	2018	2019	2020	2021	2022
<i>Individual Market</i>			<i>Proposed</i>	<i>Tentative</i>	<i>Tentative</i>
Total Annual Individual Market Premium (\$ millions)	\$13,679	\$14,566	\$17,876	\$19,702	\$21,466
Plan Assessment Rate - Percentage <i>On Exchange</i>	4.00%	3.75%	3.50%	3.25%	3.00%
Plan Assessment Rate - Percentage <i>On/Off Exchange</i>	2.6%	2.4%	2.3%	2.1%	2.0%
Average Monthly Gross Premium	\$544	\$586	\$613	\$656	\$702
Premium Growth Assumptions	19.3%	7.7%	4.6%	7.0%	7.0%
Plan Assessment Estimated Per Member/Per Month <i>On Exchange</i>	\$21.44	\$21.96	\$21.23	\$21.33	\$21.32
Plan Assessment Estimated Per Member/Per Month <i>On/Off Exchange</i>	\$13.98	\$14.32	\$13.84	\$13.91	\$13.90
Plan Assessment Estimated PMPM Year-over-Year Change		2.47%	-3.35%	0.47%	-0.04%

Base Enrollment Estimate

The estimated impact of the new mandate and state subsidy programs is an incremental 300,000-member increase in 2020, of which over 180,000 would otherwise have been uninsured. Additionally, it reflects projections of increases in average premiums, including the growth in medical costs, of 4.6 percent in 2020 and 7 percent in 2021 and 2022. Consequently, the multi-year forecast projects assessment revenues of \$394.9 million in FY 2019-20, \$435.2 million in FY 2020-21 and \$441.7 million in FY 2021-22. The forecast reflects a \$379.1 million operating budget in FY 2019-20, and assumes operating budgets increase 5 percent annually to \$398.1 million in FY 2020-21 and \$418 million in FY 2021-22.

Revenues from plan assessments are projected to be higher than operating expenditures in FY 2019-20. Due to the need to continue to budget for initiatives that maximize the enrollment opportunity (conducting more-focused marketing, maintaining a favorable risk mix, improving the consumer experience and reducing health care costs), the plan reflects operating expenditures that approximate revenues over the multi-year period. The plan provides an operating reserve of approximately 10 months over the multi-year period.

The plan assessment rate reflects the approved reduction to 3.5 percent of premium for 2020, with possible reductions to 3.25 percent in 2021 and 3 percent in 2022. Covered California for Small Business plan assessments are at a level of 5.2 percent of premium for the duration of the forecast. The forecast does include revenue from family dental

coverage, which is assessed at the same rates as the medical coverage offered on the individual and CCSB markets. To the extent enrollment varies from the Base estimate forecast, Covered California would be able to adjust its revenue by increasing or decreasing the plan assessment, or by adjusting its operating expenditures.

It is important to note that each year a new multi-year forecast will be completed based on the most current information.

Budgeting to Retain Prudent Reserve Position

Covered California is expected to end FY 2018-19 with a reserve of approximately \$350 million, representing 11 months of the approved FY 2019-20 operating expenditure budget. These amounts are consistent with the direction provided by the Covered California board to identify the appropriate level of reserves necessary to provide sufficient time to make fiscal adjustments in the event of a decline in enrollment.

The board's direction has been that given the ability to adjust revenue by increasing the assessment, or to reduce contractual and personnel expenditures (the latter primarily through attrition), Covered California should implement a reserve strategy that maintains reserves at a level of 9 to 12 months in the near term, while also building a prudent Capital Projects Reserve.

Given the uncertainties facing Covered California's enrollment outlook, this reserve strategy has provided Covered California with the opportunity to approve an operating budget in FY 2019-20 that will allow it to execute its core strategies and make appropriate adjustments to revenues and expenditures in future years.

Alternative Enrollment and Financial Forecasts

In addition to the Base enrollment estimate scenario, Covered California has also developed financial scenarios that consider the impact of alternative low and high enrollment scenarios on its multi-year outlook.

Low Enrollment Alternative

The low scenario reflects the uncertainty inherent in the start-up of the new programs by assuming that they lead to 200,000 incremental gains compared to the 300,000 in the Base scenario. In addition, it assumes that renewal and retention rates return to previous levels. The scenario includes increases in average premiums, including the growth in medical costs, of 6.6 percent in 2020 and 7 percent in 2021 and 2022. The plan assessment rate reflects the approved reduction to 3.5 percent of premium for 2020, with possible reductions to 3.25 percent in 2021 and 3 percent in 2022. In the low enrollment scenario, the multi-year forecast projects assessment revenues of \$384.2 million in FY 2019-20, \$392.9 million in FY 2020-21, and \$376.3 million in FY 2021-22. Although not reflected in Table 12, should enrollment fall to levels portrayed in the low scenario, it would be necessary to decrease operating expenditures to adjust to appropriate funding for operations.

The impact of the low enrollment alternative on the multi-year forecast is illustrated below (see *Table 9: Covered California Multi-Year Financial Forecast Low Enrollment Estimate*).

Table 9
Covered California
Multi-Year Financial Forecast Low Enrollment Estimate
(Dollars in Millions)

<i>Dollars in Millions</i>	<i>FY 2018-19</i> <i>Approved</i> <i>Budget</i>	<i>FY 2018-19</i> <i>Projected</i> <i>Actuals</i>	<i>FY 2019-20</i> <i>Projected</i>	<i>FY 2020-21</i> <i>Projected</i>	<i>FY 2021-22</i> <i>Projected</i>
Effectuated Enrollment (fiscal year end)	1,201,447	1,361,251	1,460,054	1,408,488	1,373,395
Opening Reserve Balance	\$313.6	\$325.6	\$347.2	\$332.3	\$307.1
Plan Assessments-Cash Basis	\$351.1	\$371.6	\$384.2	\$392.9	\$376.3
Projected Operating Expenditures	(\$340.2)	(\$320.0)	(\$379.1)	(\$398.1)	(\$418.0)
Margin Contribution - Cash Basis	\$10.9	\$51.6	\$5.1	(\$5.2)	(\$41.7)
Capital Projects Reserve	(\$10.0)	(\$30.0)	(\$20.0)	(\$20.0)	(\$20.0)
Year-End Operating Reserve	\$314.5	\$347.2	\$332.3	\$307.1	\$245.4
Number of months of reserve	10.9	11.0	10.0	8.8 *	7.0 *

Plan Year	2018	2019	2020	2021	2022
Individual Market			Proposed	Tentative	Tentative
Total Annual Individual Market Premium (\$ millions)	\$13,679	\$14,557	\$16,641	\$17,166	\$17,889
Plan Assessment Rate - Percentage <i>On Exchange</i>	4.00%	3.75%	3.50%	3.25%	3.00%
Plan Assessment Rate - Percentage <i>On/Off Exchange</i>	2.6%	2.4%	2.3%	2.1%	2.0%
Average Monthly Gross Premium	\$544	\$586	\$625	\$669	\$715
Premium Growth Assumptions	19.3%	7.7%	6.6%	7.0%	7.0%
Plan Assessment Estimated Per Member/Per Month <i>On Exchange</i>	\$21.44	\$21.97	\$21.78	\$21.84	\$21.79
Plan Assessment Estimated Per Member/Per Month <i>On/Off Exchange</i>	\$13.98	\$14.32	\$14.20	\$14.24	\$14.21
Plan Assessment Estimated PMPM Year-over-Year Change		2.48%	-0.84%	0.25%	-0.22%

*Estimated reserves are below the recommended 9 - 12 months. Appropriate adjustments would be made if necessary.

High Enrollment Alternative

The high scenario assumes that the new programs lead to gains slightly better than estimated—315,000 additional enrollees. The scenario includes increases in average premiums, including the growth in medical costs, of 2.6 percent in 2020 and 7 percent in 2021 and 2022. The plan assessment rate reflects the approved reduction to 3.5 percent of premium for 2020, with possible reductions to 3.25 percent in 2021 and 3 percent in 2022. In the high enrollment scenario, the multi-year forecast projects assessment revenues of \$402.8 million in FY 2019-20, \$457.4 million in FY 2020-21 and \$482.5 million in FY 2021-22. In this scenario, no adjustments were made to operating expenditures for the increased enrollment.

The impact of the high alternative on the multi-year forecast is illustrated below (see *Table 10: Covered California Multi-Year Financial Forecast High Enrollment Estimate*).

Table 10
Covered California
Multi-Year Financial Forecast High Enrollment Estimate
(Dollars in Millions)

<i>Dollars in Millions</i>	<i>FY 2018-19</i>	<i>FY 2018-19</i>	<i>FY 2019-20</i>	<i>FY 2020-21</i>	<i>FY 2021-22</i>
	<i>Approved</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
	<i>Budget</i>	<i>Actuals</i>			
Effectuated Enrollment (fiscal year end)	1,201,447	1,370,413	1,678,880	1,797,510	1,887,563
Opening Reserve Balance	\$313.6	\$325.6	\$347.3	\$351.0	\$390.4
Plan Assessments-Cash Basis	\$351.1	\$371.8	\$402.8	\$457.4	\$482.5
Projected Operating Expenditures	(\$340.2)	(\$320.0)	(\$379.1)	(\$398.1)	(\$418.0)
Margin Contribution - Cash Basis	\$10.9	\$51.8	\$23.7	\$59.3	\$64.5
Capital Projects Reserve	(\$10.0)	(\$30.0)	(\$20.0)	(\$20.0)	(\$20.0)
Year-End Operating Reserve	\$314.5	\$347.3	\$351.0	\$390.4	\$434.9
Number of months of reserve	10.9	11.0	10.6	11.2	12.4 *

Plan Year	2018	2019	2020	2021	2022
Individual Market			Proposed	Tentative	Tentative
Total Annual Individual Market Premium (\$ millions)	\$13,679	\$14,692	\$18,467	\$21,156	\$23,768
Plan Assessment Rate - Percentage On Exchange	4.00%	3.75%	3.50%	3.25%	3.00%
Plan Assessment Rate - Percentage On/Off Exchange	2.6%	2.4%	2.3%	2.1%	2.0%
Average Monthly Gross Premium	\$544	\$586	\$601	\$643	\$689
Premium Growth Assumptions	19.3%	7.7%	2.6%	7.0%	7.0%
Plan Assessment Estimated Per Member/Per Month On Exchange	\$21.44	\$21.92	\$20.79	\$20.85	\$20.84
Plan Assessment Estimated Per Member/Per Month On/Off Exchange	\$13.98	\$14.29	\$13.55	\$13.59	\$13.59
Plan Assessment Estimated PMPM Year-over-Year Change		2.28%	-5.18%	0.29%	-0.04%

* Estimated reserves exceed 12 months. Appropriate adjustments would be made if necessary.

VI. Covered California’s FY 2018-19 Operating Budget Compared to FY 2019-20

The FY 2019-20 operating budget provides \$379.1 million to carry out Covered California’s mission. In addition to general salary increases, supplemental pension payments and Pro Rata, changes include increases to the areas of Marketing, Outreach/Sales and Other, Service Center and the Consumer Experience, Plan Management and Eligibility, Administration, and Technology (see *Table 11: Covered California’s FY 2018-19 vs FY 2019-20 Operating Budget*).

Table 11
Covered California’s FY 2018-19 vs FY 2019-20 Operating Budget
(Dollars in Millions)

	2017-18	2018-19	2019-20	
	Budget	Budget	Budget	Difference
Marketing, Outreach/ Sales & Other	107.3	107.4	121.0	13.6
Service Center & Consumer Experience	92.3	102.0	115.4	13.4
Technology	62.6	70.1	70.2	.1
Administration	41.8	44.2	52.1	7.9
Plan Management & Eligibility	15.6	16.5	20.4	3.9
Total Operating Budget	\$319.6	\$340.2	\$379.1	\$38.9

What follows is a brief overview of the funding changes for each program area between the FY 2018-19 operating budget of \$340.2 million and the FY 2019-20 operating budget of \$379.1 million. A realignment of Information Technology (IT) investments has been made in FY 2019-20, which allocates costs directly to the supported program area.

Marketing, Outreach/Sales and Other: The FY 2019-20 budget includes \$121 million for outreach and marketing efforts to inform Californians about Covered California’s products and retain those who are already enrolled. The budget includes a \$6.5 million navigator program and \$55 million for paid media, which aid in informing Californians about the value of insurance and the availability for many of financial assistance, encouraging retention of those who have enrolled, and maintaining a favorable risk mix. Of that \$55 million, \$10 million was added to the originally proposed budget for the development and implementation of new creative media that will target audiences and advance the effort in educating consumers about the new state subsidy and individual mandate.

Service Center and Consumer Experience: The FY 2019-20 budget of \$115.4 million includes \$1.6 million for the Ombuds Office, and \$1.4 million for the Customer Care Division and reflects an increase of \$13.4 million from the FY 2018-19 Service Center budget. The increase reflects the attribution of existing IT investments, including vendor-supported customer relationship management and workforce management solutions previously budgeted within Technology to provide transparency as to the program costs; in addition to increased funding for the Surge Vendor.

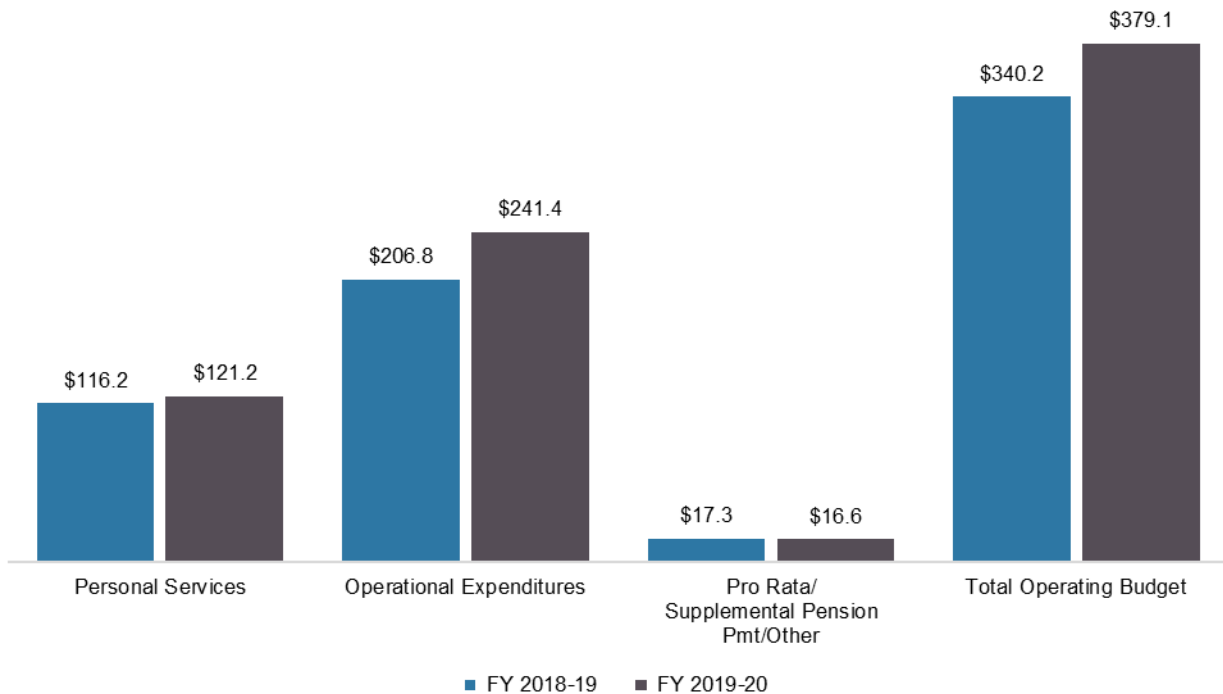
Technology: The FY 2019-20 budget of \$70.2 million includes \$15.9 million in Information Technology (IT) infrastructure, including enterprise project management oversight and \$54.3 million for the consumer enrollment system. This includes \$14M for one-time costs associated with modifying the eligibility and enrollment system to implement the new state subsidy and individual mandate, an increase from the originally proposed budget.

Administration: The FY 2019-20 budget includes \$26.5 million for personal services and \$20.5 million for contracts, which includes \$2.2 million for the implementation of a human-capital management solution, and \$525,000 for automation efforts and ongoing support for the department's transition into Fi\$Cal.

Plan Management and Eligibility: The FY 2019-20 budget includes \$10 million for personal services and \$8.4 million for contracts and other expenses. Additional resources will enable Covered California to increase data science and analytics efforts, as well as engagement and quality measures, through effective management and coordination of activities between Covered California and its health plans.

A brief overview of funding changes by expense category compares the operating budgets of FY 2018-19 and FY 2019-20 as follows (see *Figure 5: Expense Category: FY 2018-19 Compared to FY 2019-20*).

Figure 5
Expense Category: FY 2018-19 Compared to FY 2019-20
 (Dollars in Millions)



Personal Services: FY 2019-20 costs for personal services are approximately \$5 million higher than FY 2018-19, which is attributed to a combination of position adjustments, bargained general salary increases and an adjustment to benefits costs.

Operational Expenditures: The FY 2019-20 budget of \$241.4 million includes all contract and operational expenditures spending, such as paid media, CalHEERS, IT infrastructure, Service Center surge vendor, navigators and CCSB sales and administrative support.

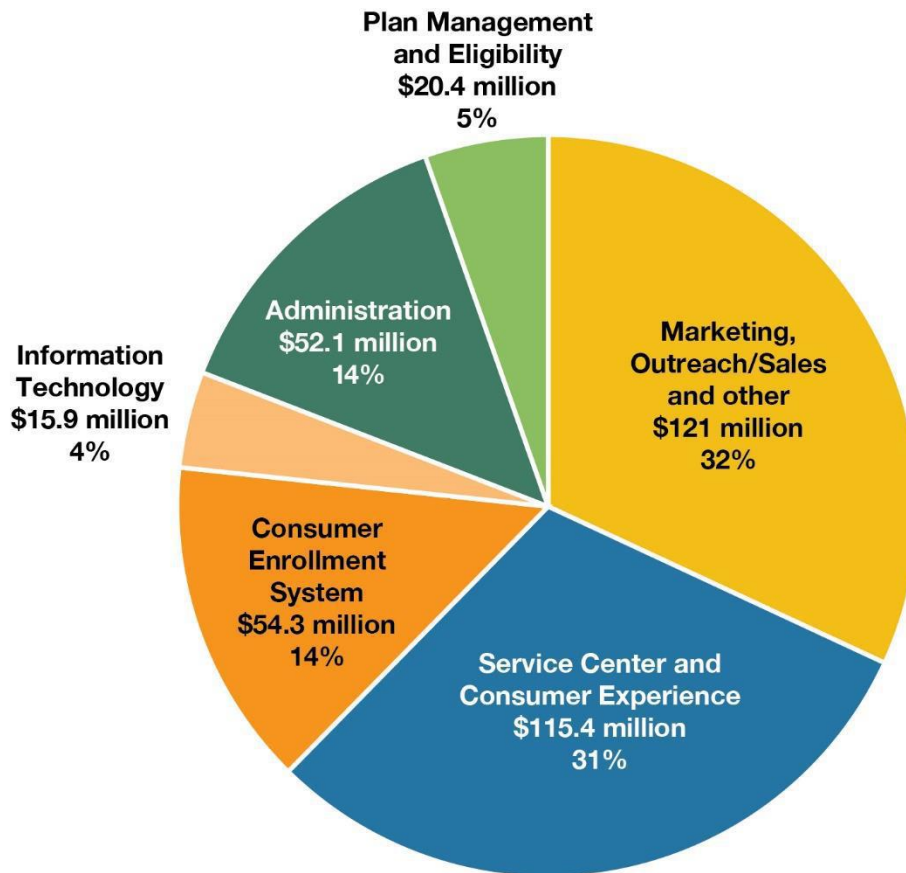
Pro Rata, Supplemental Pension Payment and Other: The FY 2019-20 budget includes \$12.8 million for Pro Rata, a decrease of \$1.9 million from FY 2018-19. In addition, an obligation which requires all General Fund, special and non-governmental cost funds to pay their proportionate share of the state’s unfunded pension liability resulted in a \$3.2 million assessment to the California Health Trust Fund.

VII. Covered California's Approved FY 2019-20 Operating Budget

The FY 2019-20 Covered California operating budget provides the resources to support Covered California's efforts to expand coverage options and promote an affordable and competitive individual insurance market while providing adequate funding to allow the organization to navigate through the uncertainty caused by federal decisions.

The budget framework is informed by Covered California's financial guiding principles and strategic pillars, the FY 2018-19 projected expenditures, the 2019 enrollment and revenue forecast and the multi-year forecast. The approved budget provides 1,386 positions and \$379.1 million to fund program operations that is divided among Covered California's major functional areas (see *Figure 6: Covered California's Approved FY 2019-20 Operating Budget: \$379.1 million*).

Figure 6
Covered California's Approved FY 2019-20 Operating Budget: \$379.1 million



This approved budget funds the delivery of critical programs and allows Covered California to continue to address its strategic priorities in the context of a multi-year plan

under which revenues exceed expenditures in FY 2019-20 and reserves are maintained at a level sufficient to address changes in enrollment and are in alignment with guidance provided by our board.

Fiscal Strategy

In strict accordance with the financial mandates set forth under Government Code section 100503, Covered California maintains its fund reserves at a level that is sufficient to assure an adequate balance to allow for timing lags needed to adjust revenue and expenditures, including adjustments in plan assessments.

Consistent with its strategy of making health care more affordable, Covered California will lower its assessment from 3.75 percent of premiums to 3.5 percent of premiums in the 2020 plan year. This revised rate is consistent with Covered California's multi-year strategy and provides sufficient assessment revenues to cover the costs associated with attracting, retaining and supporting enrollees in FY 2019-20.

VIII. Covered California's FY 2019-20 Capital Projects Budget

Covered California established a Capital Projects Reserve in FY 2017-18 intended for the payment of capital projects. A capital project is a long-term capital investment with a purpose to build upon, add to or improve a capital asset. A capital project is one in which the cost of the product is capitalized or depreciated, such as new facilities, building improvements, infrastructure assets and ancillary items.

To accommodate its headquarters, service centers and some field operations, Covered California currently leases space in numerous locations. In anticipation of significant facilities costs associated with the impending expiration of some of these lease agreements beginning in 2019, and to lessen fiscal year budget fluctuations, Covered California established a Capital Projects Reserve.

The Covered California board adopted the following principles that guide the organization's management of the Capital Projects Reserve which will:

- Adhere to established Covered California contracting procedures.
- Be funded via an annual allocation.
- Be used for specific facility projects, subject to board review and approval. This includes costs to build, renovate, or buy equipment, property, facilities and associated infrastructure and information technology.
- Be included in the annual budget with an accounting of amounts added and expended each fiscal year.
- Fluctuate as any prior and current fiscal year unexpended funds are carried over for use in future fiscal years.

The budget for the Capital Projects Reserve is displayed separately from the operating budget. Distinguishing operating expenditures from capital expenditures follows generally accepted accounting principles. The capital projects reserve and projected expenditures over the multi-year period are below (see *Table 13: Covered California Capital Projects Reserve: Budget and Expenditures*).

In FY 2018-19, Covered California engaged in multiple planning processes to support facility-related improvement projects. While relatively small tenant improvements have been conducted during FY 2018-19, no expenses are planned to be charged to the Capital Projects Reserve. Larger scale capital projects are anticipated beginning in FY 2019-20.

Covered California leases office space for its headquarters and service centers. The lease terms vary, with the first lease term expiring in October 2019 and the longest-term lease expiring in April 2026. Covered California’s capital project priorities in FY 2019-20 will revolve around lease and workspace issues for the Fresno and Rancho Cordova Service Centers, as well as additional space for the Exposition location (see *Table 12: Covered California Facility Leases*).

**Table 12
Covered California Facility Leases**

Location	Lease Term
Service Center - Fresno	9/9/2013 - 10/31/2019
Service Center - Rancho Cordova	8/1/2013 - 7/31/2020
Oakland Office	3/1/2014 - 2/28/2022
Exposition Office- Sacramento	5/1/2014 - 4/30/2022
Response Office- Sacramento	5/1/2018 - 4/30/2026

Budget Highlights and Key Changes

In FY 2018-19, the opening balance of the Capital Projects Reserve was \$10 million. In addition to a \$10 million budget authorized for FY 2018-19, approximately \$20 million in unspent funds will be transferred from the operating budget, with a FY 2018-19 ending balance of \$40 million. There were no expenditures from the Capital Projects Reserve in FY 2018-19. Covered California anticipates spending approximately \$12 million in lease and workspace improvements for Fresno and Rancho Cordova service centers in FY 2019-20 (see *Table 13: Covered California Capital Projects Reserve: Budget and Expenditures*).

**Table 13
Covered California Capital Projects Reserve: Budget and Expenditures
(Dollars in Millions)**

Fiscal Year	2017-18	2018-19	2019-20	2020-21	2021-22
Opening Balance	.0	10.0	40.0	48.0	63.0
Capital Projects Budget	10.0	10.0	20.0	20.0	20.0
Transfer Savings from Operating Budget	.0	20.0	.0	.0	.0
Projected Capital Expenditures	.0	.0	(12.0)	(5.0)	(5.0)
Year-End Capital Projects Balance	\$10.0	\$40.0	\$48.0	\$63.0	\$78.0

IX. Covered California’s Operating Budget Program Details

The following section includes a three-year view of each program’s operating budget and associated key activities that support Covered California’s Goals, Strategic Pillars and Initiatives.

Plan Management and Eligibility	38
Marketing, Outreach/Sales and Other.....	47
Service Center and Consumer Experience.....	66
Technology	80
Administration	88

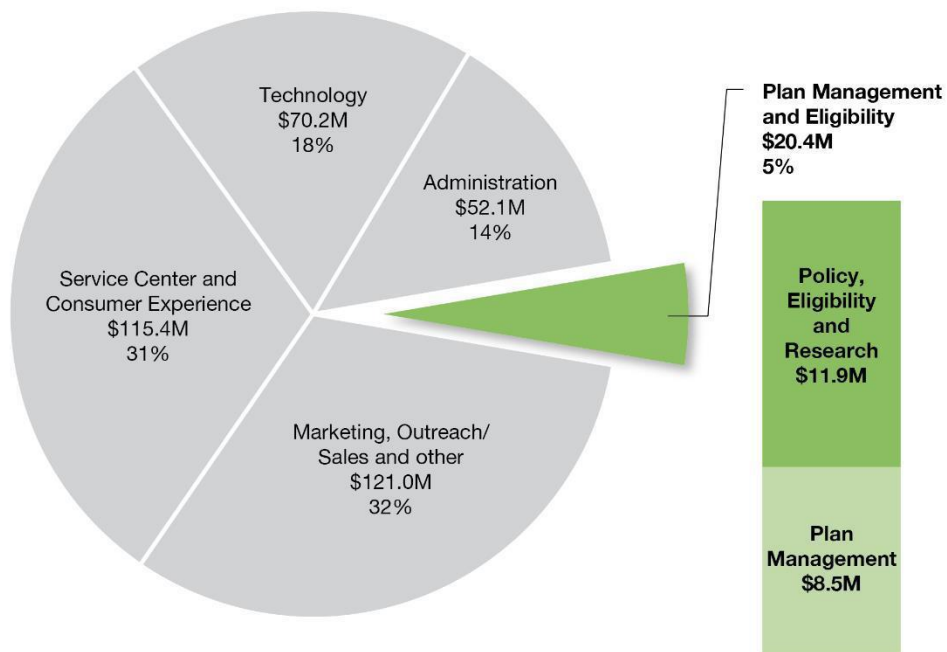
Plan Management and Eligibility

Plan Management and Eligibility includes the Plan Management Division and the Policy, Eligibility and Research Division and has a total budget for FY 2019-20 of \$20.4 million.

Plan Management and Eligibility– Multi-Year View

Fiscal Year	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	63	75	87
Personal Services	5,949,247	8,059,380	10,019,900
Operating Expenses	4,893,223	7,489,207	8,406,840
Total Expenses	\$10,842,470	\$15,548,587	\$18,426,740
Information Technology Support			909,526
ProRata / Sup. Pension Pay./ Other	638,918	925,513	1,040,838
Total Operating Costs	\$11,481,387	\$16,474,101	\$20,377,104

Plan Management and Eligibility FY 2019-20 Budget



Plan Management Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	30	34	41
Personal Services	3,243,071	3,952,995	5,107,007
Operating Expenses	1,143,298	2,038,022	2,484,522
Total Expenses	\$4,386,369	\$5,991,017	\$7,591,529
Information Technology Support	-	-	428,627
ProRata / Sup. Pension Pay./ Other	304,246	419,566	490,510
Total Operating Costs	\$4,690,615	\$6,410,583	\$8,510,666

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes exempt positions:

- Director of Plan Management; authority per code 100503(m) at a monthly salary of \$13,250.
- Senior Medical Advisor; authority per code 100503(m) at a monthly salary of \$29,189.

This budget includes seven new positions, one Physician, one Pharmaceutical Consultant, three Health Program Specialist II's, one Health Program Manager III, and one Executive Assistant to improve quality standards, program oversight, and increase engagement with qualified health and dental plans.

This budget includes:

- \$1,507,460 for consulting services.
- \$522,000 for actuarial services.
- \$138,000 for other operational expenses, which include general training, travel and office supplies.
- \$85,500 for project management.
- \$81,562 for medical advisor services.
- \$75,000 for quality assurance services.
- \$75,000 for professional memberships.

Division Description

The Plan Management Division's (PMD) purpose is to improve the cost, quality and accessibility of health care delivered to consumers through its contracted health plan issuers and to enable Covered California's goals through the effective management and coordination of activities between Covered California and its health plan issuers.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Annually certifies and recertifies health and dental plan issuers that promote rate moderation and meaningful plan options.
- Updates and develops new patient-centered benefit designs.
- Works closely with issuers to ensure contract compliance and effective partnerships with regulators.
- Holds health plan issuers accountable for executing quality-improvement strategies promoting delivery system reform and assuring enrollees get timely high-quality care.
- Ensures enrollee access to primary care by providing support to navigate the health care system through patient-centered benefit designs and by requiring all health plan issuers to match a primary care clinician to every enrollee.
- Reviews division performance, sharing information and ideas and ultimately improving the products and services provided to enrollees through regular engagement, including in-person quarterly business review meetings with health plan issuers.
- Validates Systems for Electronic Rate and Form Filing (SERFF) templates submitted by carriers on health plan rates, plan benefit designs, provider networks, service areas and pharmaceutical formularies.

Key Objectives for FY 2018-19

- Negotiated premiums and service area changes and certified 11 health plan issuers for the 2019 plan year. For 2019, 96 percent of consumers could choose from two or more issuers, and 82 percent from three or more. The average 2019 premium rate increase was limited to 8.7 percent, despite the loss of the individual mandate penalty. Without the federal decision to eliminate the federal individual mandate penalty, which added between 2.5 and 6 percentage points to premium rates, consumers would have seen an average rate increase of 2 to 6 percent.
- Negotiated premiums and service area changes and certified seven dental plan issuers for the 2019 plan year, with a total dental enrollment of 220,459. All consumers could choose from two or more issuers, with 96 percent of consumers having a choice of six or seven issuers. Successfully negotiated an average dental plan premium-rate reduction of 1.7 percent for 2019.
- Executed contracts for 11 qualified health plan issuers and 7 qualified dental plan issuers, and in partnership with plan issuers and stakeholder advocates, established the 2020 standard benefit designs for health and dental benefits.

- Provided an early public look at the results of Covered California’s work to improve health care by promoting better quality while reducing costs.
 - For 2018, all Covered California health plans received at least three stars under the quality rating system (QRS), with five receiving four or five stars. In 2016, most plans received only two stars. QRS is a national system that incorporates 42 measures to track the quality of care provided by health plans offered through public exchanges.
 - Ninety-nine percent of enrollees were matched with a primary care physician or clinician.
 - Early results found that Covered California’s plans have a higher rate of diabetes medication adherence and a higher rate of controlling high blood pressure than the national average, with its best-performing plan scoring higher than the 90th percentile when compared to national marketplace plans.
 - Ninety-nine percent of enrollees have access to an online tool with cost information.
 - Working through Smart Care California (co-chaired by the Department of Health Care Services, California Public Employees’ Retirement System and Covered California), an honor roll was established and announced by the Secretary of the California Health and Human Services Agency for hospitals to reduce low-risk, first-birth cesarean section rates. Nearly 4,500 fewer unnecessary caesarean sections were performed for low-risk pregnancies in 2017. Most hospitals have now achieved or exceeded the target rate while improvement continues.
- Contracted with two vendors to conduct evidence reviews in areas that purchasers can use to improve value in health care, improve and align measurement standards and benchmarks, and solicit input from employers and other large health purchasers on current initiatives to assure quality care and effective care delivery. The findings from these reports will inform and guide the development of the 2021-2023 Model Contract.
- Oversaw the development of a legislative report on issues to consider regarding the option to combine California’s individual and small-group markets into a single risk pool. The report examined advantages and disadvantages, including the impact on premium rates for both markets.

Key Accomplishments for FY 2017-18

- Negotiated premiums and service area changes and certified 11 health plan issuers for 2018, during which, 95 percent of consumers could choose from two or more issuers, and 82 percent from three or more.
- In the absence of a federal commitment to continue funding cost-sharing reduction reimbursements, worked with qualified health plan issuers to add a surcharge to on-exchange Silver-tier products in 2018. This provided higher tax credits to consumers who were eligible to receive them, while allowing those who did not to enroll in Silver plans without the surcharge.
- Ensured continuous coverage for 153,000 Anthem enrollees who lost access to their health plan due to Antheims withdrawal from some regions of California, including those who did not actively choose a new plan. Worked with all carriers to organize and share data to support continuity of care for Anthem patients who lost access to their plan.
- Launched an integrated provider directory on CoveredCA.com, making it easier for consumers to understand which providers are available in each plan as they consider their health plan options.

Policy, Eligibility and Research Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	33	41	46
Personal Services	2,706,176	4,106,385	4,912,893
Operating Expenses	3,749,925	5,451,185	5,922,318
Total Expenses	\$6,456,101	\$9,557,570	\$10,835,211
Information Technology Support	-	-	480,899
ProRata / Sup. Pension Pay./ Other	334,671	505,947	550,328
Total Operating Costs	\$6,790,772	\$10,063,517	\$11,866,438

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes five new positions, one Staff Services Manager II and two Associate Governmental Program Analysts to establish a quality monitoring team to add eligibility compliance to the Eligibility Branch, and one Research Scientist III and one Research Data Specialist II to create added data science capacity in the Eligibility and Research Branch.

This budget includes:

- \$3,603,185 for data analytics that supports the Health Care Evidence Initiative. (Available at <https://hbex.coveredca.com/resources/>)
- \$900,000 for consulting services.
- \$750,000 for readability and translation services.
- \$500,000 for collateral and printing of advertising materials.
- \$79,133 for other operational expenses, which include general training, travel and office supplies.
- \$50,000 for professional memberships
- \$40,000 for student assistants.

Division Description

The Policy, Eligibility and Research Division provides accurate, complete and timely policy and data analysis to support evidence-based decision-making. Through its Eligibility Branch, the Policy, Eligibility and Research Division ensures appropriate implementation of program-eligibility rules.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Acts as an advisor and resource to management on the development, implementation and evaluation of program policies, including the coordination of the provision of input on federal and state exchange policy, rules and regulations.

- Designs and provides advisory support on manual and automated eligibility processes, procedures and verifications.
- Creates and maintains Covered California individual market applications and consumer communications regarding eligibility and enrollment.
- Directs the Covered California Healthcare Evidence Initiative that analyzes consumer access to care through clinical, enrollment and qualitative survey data and identifies opportunities for improvements and organization-wide governance of high-priority, high-visibility research efforts.
- Under the Healthcare Evidence Initiative, analyzes consumer access to care through clinical, enrollment and qualitative survey data and identifies opportunities for improvements.
- Manages Covered California’s consumer surveys.
- Coordinates with state departments to improve transitions of consumers between coverage through Medi-Cal and Covered California.
- Develops reports on critical issues to inform policy development and strategies.
- In partnership with the Plan Management Division and the chief actuary, provides data and models to describe the consumer response to the prior year’s products and price in support of rate negotiations.
- Continues to refine eligibility processes to ensure compliance and provide a simple and positive consumer experience, including consumers transitioning between coverage through Medi-Cal and Covered California.

Key Objectives for FY 2018-19

- Organized and implemented the AB 1810 stakeholder workgroup process, which led to completing and submitting the AB 1810 Affordability Report to the governor and Legislature, “Options to Improve Affordability in California’s Individual Health Insurance Market.” (Available at https://hbex.coveredca.com/data-research/library/CoveredCA_Options_To_Improve_Affordability.pdf)
- Fielded 2019 Consumer Survey with a focus on timely policy concerns such as the federal change that reduced to zero the individual mandate penalty.
- Developed and implemented several policy changes to increase positive consumer experiences, including revising the returned mail policies and procedures, revising consumer income reporting Frequently Asked Questions and fact sheets and updating authentication and consent guidance.

- Led efforts through the Healthcare Evidence Initiative to inform policy on implications to the risk pool of marketing, chronic conditions and benefit-design analysis.
- Provided in-house program evaluation and analytics to assist in continuous improvement of consumer outreach and optimal customer service.
- Created and launched new predictive modeling and agile analytics infrastructure to assist in “funnel outreach” – encouraging consumers who start an inquiry to complete an application and enroll.
- Led multi-divisional and multi-agency changes to CalHEERS including:
 - User experience updates that led to improvements in income reporting, sending notices and reporting changes to a consumer’s account.
 - Support with the implementation of a Document Imaging Verification Service (DIVS) that streamlines the intake of verification documents.
 - Major product update to increase the usability of the during open enrollment portal (Get Insured/Account Transfer).
 - Reduce consumer’s burden to provide documentation of lawful presence, by updating and enhancing our electronic verification.
 - Updates to the notice of eligibility language to improve comprehension and readability, such as updates to the fax cover page, which includes a list of acceptable documents. This will enhance consumer’s understanding and lead to greater compliance.
 - Updates to the cover letter for IRS Form 1095A, including readability and comprehension language changes to improve the consumer’s understanding of the tax credit and reconciliation process.

Key Accomplishments for FY 2017-18

- Published various issue briefs and analyses for federal and state health care proposals, earning a PR News Platinum Award. (Available at <http://hbex.coveredca.com/data-research/>)
- Coordinated with internal and external partners to develop an outreach strategy for consumers transitioning from Medi-Cal to Covered California.
- Fielded Covered California’s 2018-consumer survey, including oversampling of key demographics and a study of survey invitation strategies to maximize representative responses.

- Refreshed approach to CalSIM model of insurance markets, including the launch of CalSIM 2.0 and subsequent improvements to model policy changes, such as the zeroing out of the federal individual mandate penalty.
- Refreshed support for the California Health Interview Survey, including funding new questions related to coverage and care for Californians.
- Collaborated with Harvard and UC Berkeley on a survey of insurance markets in California, leading to publication in Health Affairs providing insight into policy-relevant issues like the individual mandate.
- Worked to educate and inform leadership regarding the impact of impending federal rules that sought to expand the reach of short-term and associated health plans.
- Managed a large effort to update consumer notices, including increasing comprehension and readability, updating flow of messaging, revisions for regulatory changes and modified triggering attributes.
- Led multi-divisional and multi-agency changes to CalHEERS including:
 - An overhaul to the user experience of the online application.
 - Align with eligibility rules and regulations such as reasonable opportunity period enhancements.
 - Dynamically display a minimum number of questions based on possible program eligibility to enhance the consumer experience and streamline the application process.
 - Generate consumer's notice of eligibility in 12 threshold languages.

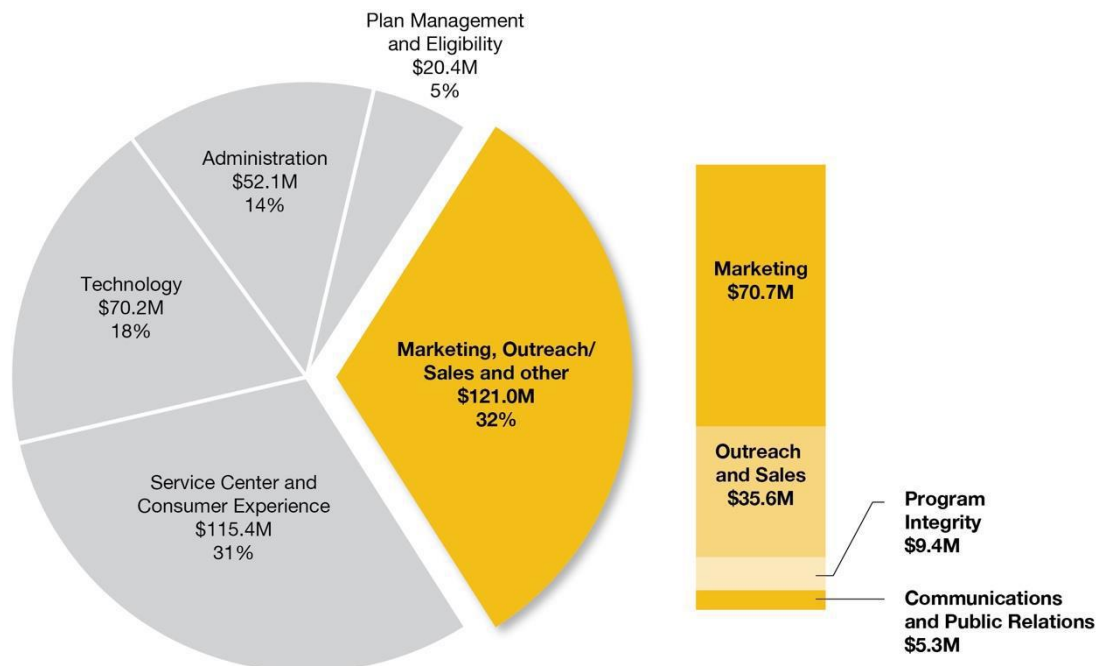
Marketing, Outreach/Sales and Other

Marketing, Outreach/Sales and Other includes the following divisions: Marketing, Outreach and Sales, Program Integrity, Communications and Public Relations. The total budget for FY 2019-20 is \$121.0 million.

Marketing, Outreach/Sales, Communications and Program Integrity – Multi-Year View

Fiscal Year	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	168	167	172
Personal Services	14,712,056	16,737,228	17,807,598
Operating Expenses	87,815,073	88,638,500	98,341,077
Total Expenses	\$102,527,128	\$105,375,728	\$116,148,675
Information Technology Support			2,808,414
ProRata / Sup. Pension Pay./ Other	1,703,780	2,060,809	2,057,748
Total Operating Costs	\$104,230,908	\$107,436,537	\$121,014,837

Marketing, Outreach/Sales and Other FY 2019-20 Budget



Marketing Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	26	26	27
Personal Services	2,439,209	2,804,216	3,147,948
Operating Expenses	61,094,290	58,617,000	66,960,040
Total Expenses	\$63,533,499	\$61,421,216	\$70,107,988
Information Technology Support	-	-	282,267
ProRata / Sup. Pension Pay./ Other	263,680	320,845	323,019
Total Operating Costs	\$63,797,180	\$61,742,061	\$70,713,273

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes an exempt position for the Director of Marketing; authority per code 100503(m) at a monthly salary of \$12,923.

This budget includes one new bilingual Marketing Specialist position to lead the Spanish-language social media efforts, including in-language customer service.

This budget also includes an additional \$10 million for the development and implementation of new creative media that will target audiences and advance the effort in educating consumers about the new state subsidy and individual mandate.

This budget also includes:

- \$55,000,000 for marketing contracts.
- \$4,727,369 for collateral, fulfillment and printing.
- \$2,500,000 for market research.
- \$2,292,631 for voter registration.
- \$2,000,000 for strategic initiatives.
- \$440,040 for other operational expenses, which include general training, travel and office supplies.

Division Description

Covered California’s marketing, outreach and education efforts are anchored in and responsive to California’s ethnic, cultural, regional and language diversity. Covered California implemented a comprehensive marketing campaign strategy to reach and motivate Californians to enroll in or renew health insurance through Covered California.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

Covered California’s marketing campaigns are designed to:

- Build brand awareness and engagement by emphasizing the value and benefits of health insurance.
- Position Covered California as the place to get quality health coverage, financial assistance and free in-person enrollment assistance.
- Drive enrollment in Covered California by engaging with consumers at key decision points in the enrollment journey.
- Drive retention and renewal of existing membership through timely and relevant communications.
- Covered California’s marketing campaigns continue to leverage the brand platform “It’s more than just health care; it’s life care” and highlighted everyday relatable moments when “life can change in an instant.” Each scenario reinforces the message that “Life can change in an instant; be covered when it does.” In addition, the campaigns expanded on coverage affordability and financial help availability with the more tangible “Enrollees pay an average of \$5 per day” message.
- General market (multi-segment) campaign: launched to reach English-speaking, subsidy-eligible Californians from multiple ethnic and cultural backgrounds through brand TV, direct response TV, radio, digital/mobile, social media, out-of-home and direct-mail channels.
- Latino segment campaign: included Spanish-language brand TV, direct response TV, radio, digital, mobile, direct mail and social media statewide. In addition, print publications and out-of-home ads were used in select areas with high concentrations of Latinos.
- African-American segment campaign: leveraged general market TV, radio, digital and social media, local radio stations, DJs, print publications and out-of-home media placements in Los Angeles, San Francisco/Oakland, San Diego and Sacramento.
- Asian/Pacific Islander segment campaign: launched in Los Angeles, San Francisco, Sacramento, Fresno and San Diego in Chinese (Cantonese and Mandarin), Vietnamese and Korean, using TV, radio, print and digital. Print advertising targeting Filipinos and radio advertising reaching Hmong, Cambodian and Laotian communities were also included in select markets.
- LGBTQ segment campaign: targeted Los Angeles and San Francisco markets via print publications and out-of-home outlets such as bus shelters and bike shares. The LGBTQ audience was also reached statewide via TV, digital and social media.

- Retention/renewal campaign: continued to provide information to consumers about how to renew coverage, deadlines, plan changes, paying premiums, tax preparation, 1095-A tax forms and how to report changes. Other educational topics such as “Using Your Plan,” “Health Care Terms Explained” and “Understanding Deductibles, Copays and Coinsurance” were also communicated.
- Lead-nurturing campaign: reached consumers at various stages of the application process via lead nurturing, text messaging and email marketing campaigns to provide information about deadlines and reminders to submit their application or pick a plan.
- Special enrollment campaign: informs consumers about opportunities to enroll in a health plan through Covered California outside of the open enrollment period if they experience a qualifying event. The special enrollment marketing campaign uses radio, digital and social media.

Key Objectives for FY 2018-19

- Conducted extensive consumer research to inform the open enrollment marketing campaign, including quantitative and qualitative studies across population segments and in multiple languages.
- Implemented a successful marketing campaign grounded in research learnings that contributed to 295,980 new sign-ups during open enrollment, with dedicated efforts tailored by segment.
- The lead-capturing program via data automation encouraged prospects to shop and enroll in coverage, contributing to 6,119 new sign-ups during open enrollment.
- The retention and renewal program effectively targeted existing consumers, using email and direct mail, contributing to nearly 1.22 million enrollees renewing their membership for 2019.
- Conducted a social media campaign, which established a highly visible presence on Facebook, Twitter, Instagram and YouTube to engage directly with Californians and functioned as a successful customer service platform. Consumers who posted comments and questions were provided a response within two hours from Covered California within 90 percent of the time (English) and 75 percent of the time (Spanish).
- Promoted dental plan offerings, contributing to 220,459 dental plan selections during the open enrollment and renewal periods.

Key Accomplishments for FY 2017-18

- Conducted an extensive consumer research effort to inform the open enrollment marketing campaign, including quantitative and qualitative studies across segments and in multiple languages.
- Implemented a successful marketing campaign grounded in research learnings that contributed to 423,484 new plan selections during open enrollment, with dedicated efforts tailored by segment.
- In collaboration with the Policy, Eligibility and Research Division, Information Technology Division and Accenture, conducted a pilot lead-capture campaign that included “data automation” (data automatically flowing from CalHEERS to Eloqua, Covered California’s email platform) to enable more real-time conversations with prospects and produce better enrollment results.
- The retention and renewal program effectively targeted existing consumers, using email and direct mail, contributing to nearly 1.1 million enrollees renewing their membership for 2018.
- Conducted the social media campaign, which established a highly visible presence on Facebook, Twitter, Instagram and YouTube to engage directly with Californians and functioned as a successful customer service platform. Consumers who posted comments were provided a response from Covered California within two hours 87 percent of the time.
- Promoted dental plan offerings, contributing to 334,369 dental plan selections during the open enrollment and renewal periods.

Outreach and Sales Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	59	58	62
Personal Services	5,538,152	5,896,992	6,338,698
Operating Expenses	23,182,580	26,193,000	26,957,037
Total Expenses	\$28,720,732	\$32,089,992	\$33,295,735
Information Technology Support	-	-	1,606,168
ProRata / Sup. Pension Pay./ Other	598,351	715,730	741,746
Total Operating Costs	\$29,319,083	\$32,805,723	\$35,643,649

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes an exempt position for the Director of Outreach and Sales; authority per Government Code 100503(m) at a monthly salary of \$16,878.

This budget includes four new positions, one Staff Service Manager III and two Associate Governmental Program Analysts to support Covered California Small Business, and one Staff Services Manager II for the Distribution Services unit.

This budget includes:

- \$16,539,037 for Covered California for Small Business program administration and agent support.
- \$6,500,000 for the navigator and in-person assistance program.
- \$1,478,000 for other operational expenses, which include ground efforts, general training, travel and office supplies.
- \$1,300,000 for Covered California for Small Business marketing activities.
- \$565,000 for consulting services.
- \$485,000 for infrastructure projects.
- \$85,000 for student assistants.
- \$5,000 for background checks and fingerprinting

Division Description

The purpose of the Outreach and Sales Division is to educate and support the individual and small business exchange sales channels to increase the number of insured Californians.

Individual Market

The individual market sales channels are Certified Insurance Agents, Navigator Certified Enrollment Counselors, Certified Application Counselors, Plan-Based Enrollers

and Medi-Cal managed-care plan enrollers. Sales channels enrolled 58 percent of new and renewed consumers in Covered California during open enrollment for 2019.

The Outreach and Sales Division individual market consists of two operation branches:

The Sales Operations Branch oversees the administration, system and analytic operation functions to ensure sales channels have met contractual requirements to collaborate with Covered California, have access to the application portal and are equipped with resources to assist and enroll consumers. The branch is supported by these areas:

- Agent administration: oversees policy, contracts and compliance for more than 13,000 Certified Insurance Agents.
- Distribution services: develops communications and conducts training. Manages storefronts, the events program, portals, the “Help on Demand” consumer-referral program, the sales service center and CalHEERS in support of sales-channel partners.
- Business analytics: monthly sales reporting, support of the Salesforce Customer Relationship Management sales system and maintaining “hot spot” maps using geographic information software.

The Sales Distribution Channels Branch focuses on sales strategies, direct support to the sales channels and strategic partnerships in communities throughout the state to develop new and innovative ways to connect consumers to coverage. The branch works closely with the sales partners to enroll and retain consumers and diverse populations. The branch is supported by these areas:

- Certification services: certification of all non-insurance agent enrollers, including 500 certified enrollment entities and more than 5,000 Certified Enrollment Counselors.
- Account services: regulates the navigator grant program and oversees policy, contracts and compliance, as applicable, for navigators, Plan-Based Enrollers and Certified Application Entities.
- Business development: a field operations team is embedded in the region they support to execute the Outreach and Sales Division strategic goals through support and assistance to all certified enrollers. Provides marketplace feedback to Covered California.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Manages the navigator program. Awards grant funds to eligible organizations based on the results of a competitive application process, measuring performance against targets and adjusting awards based on performance within the grant year.

- Develops and implements the sales strategy for the individual and small business exchanges.
- Enhances the Covered California agent administration into alignment with the agency and agent business model used by the insurance industry in California.
- Builds and manages productive relationships with sales-channel partners to promote community-level outreach and enrollment throughout California.
- Oversees sales-channel training, communication, support, contracting and compliance.
- Develops and oversees client-management tools and technology.
- Develops and manages online sales-channel partner toolkits.
- Manages ongoing development of certified enroller and agent portals in CalHEERS.
- Maintains a high-performing Sales Service Center.
- Maintains the sales “find local help” initiatives: Help on Demand, storefronts and events.
- Maintains “hot spot” heat maps to identify pockets of uninsured and returning consumers and inform outreach strategies.
- Provides access to enrollment marketing materials.

Key Outreach and Sales Objectives for FY 2018-19

- Developed and implemented the Covered California approved administrative staff role into CalHEERS and operations for agencies. This effort included the joint application design sessions (JADs), user acceptance testing and defect management with CalHEERS. The team developed the training content (including job aids and quick guides) with Covered California University. They trained agencies on the application process, onboarding and management of this new role.
- Facilitated four special enrollment conferences with more than 1,000 attendees to celebrate the accomplishments and contributions of sales partners and stakeholders. Conducted 16 regional special enrollment educational workshops. Facilitated nine in-person trainings across California, preparing the over 1,300 sales channels for the 2019 open enrollment period.
- Revamped the Covered California Marketing, Outreach and Enrollment Assistance Advisory Group with new consumers and launched the first meeting on November 1, 2018. The purpose is to collect perspectives from key experts

and stakeholders, provide advice and recommendations, and serve as a sounding board to Covered California staff to assist in the continual refinement of outreach, marketing and enrollment assistance efforts.

- Significantly streamlined the mandatory annual Certified Enrollment Counselor (CEC) Re-Certification Training from nine hours to two and a half hours, which was met with resounding positive support and comments from the CECs.
- Implemented the navigator management Salesforce CRM build and enhancements, including contract compliance, monitoring and audit functions.
- Developed the new performance-based model funding and outreach activity goals for the 2019-2022 navigator program, which include effectuated enrollment and outreach and earned media activities. Launched the request for application announcement for the 2019-2022 navigator program.
- Designed, developed and managed the vendor contract to upgrade Sales CRM platform capability and agility to support program distribution strategy, campaigns and initiatives.
- Launched the Covered California churn-rate map for new consumers for the last five open- and special enrollment periods (2015 through 2019). These maps will replace the previous subsidy-eligible maps. The goal is to give the OSD strategies to reach and enroll subsidy-eligible uninsured consumers and to open storefronts and plan outreach and enrollment activities with Certified Enrollment Partners.
- Conducted a statewide outreach and open enrollment campaign that included partner communication and training, community events and grassroots marketing activities to reach 20,000 sales partners.

Key Outreach and Sales Accomplishments for FY 2017-18

- Updated Covered California's heat maps, informing strategies to reach and enroll consumers across all communities, including the underserved. The maps, powered by geographic information software, identify race and ethnicity demographics. Heat maps identify hot spots with large numbers of subsidy-eligible, uninsured consumers. They are used by health insurers, insurance agents and the Outreach and Sales Division to plan enrollment efforts.
- Managed the Help on Demand tool, a consumer-oriented, web-based assistance program through which consumers grant Covered California authorization to share their contact information with pre-selected certified enrollers. The tool connects consumers, within 30 minutes, with a certified enroller who can evaluate consumers' needs and complete the enrollment process. Metrics for 2017 included 103,930 website visits from November 17, 2016, through

November 15, 2017, with 45,526 referrals received. On “normal days,” 43.8 percent of website views become referrals and 60 percent do so on “peak days.” During the fifth open enrollment period, the program had more than 770 participating certified enrollers from all 58 counties.

- Managed the 43 grantees in the navigator grant program, which assisted more than 35,000 consumers with enrollment and renewal.
- Led 32 special enrollment and open enrollment kickoff events and meetings to promote and train Covered California’s certified enrollers.
- Established partnerships with trusted community leaders to educate consumers about Covered California’s health care options. Partnerships included those with Medi-Cal representatives, colleges and retail stores such as Walgreens and CVS. Continued partnerships with local Employment Development Department Work Investment Boards.
- The division’s field representatives conducted more than 6,000 field activities with Certified Insurance Agents and community leaders that included agent site visits, agent opportunities, meetings and storefront and events support.

Covered California for Small Business (CCSB)

Covered California for Small Business is advancing the mission of Covered California by offering small businesses and their employees a competitive, not-for-profit marketplace. This enables employees to choose the health plan, coverage and providers that offer them the best value.

- The Outreach and Sales Division is responsible for overseeing all aspects of Covered California for Small Business, including strategy, finance, sales, marketing, plan management, regulations, policy and operations.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Issued a request for proposal (RFP) for all CCSB operational components and the Agent Service Center. These functions and services are currently provided by Pinnacle Claims Management, Inc and Financial Management Division. This RFP enables CCSB to seek the best in class enrollment and financial partners that are crucial to CCSB’s ability to achieve financial sustainability by FY 2021-22.
- Continued development of CCSB’s employer, agent and general agent portals to provide consumers the ability to perform all account maintenance transactions online. Adding this self-service feature will improve the accuracy, monitoring and expediting of these transactions with the carrier partners.

- Created Application Programming Interfaces with certain channel partners (Gusto, EASE) that will allow them to link with CCSB’s enrollment and account-maintenance portals. Doing so will enable CCSB products to be sold through these channel partners. It will also let the agents expedite and digitize all enrollment documents and allow them to perform account-maintenance transactions on the channel partner portals.
- Conducted a comprehensive review of CCSB’s benefit plan portfolio to assess its competitive rate position relative to off-exchange plans. The purpose of this effort was to determine if the current approach of offering “standard benefit designs” should be revised and if a new plan-offering strategy is required to remain competitive with off-exchange plan offerings.
- Launched a targeted marketing campaign at employers who purchase CCSB products at a significantly higher volume than other employer segments. Targeted marketing dollars and tailored messages to media channels such as trade journals, social media and other communication channels these employer segments use.
- Assessed the feasibility to amend CCSB’s current eligibility regulations to allow for more flexibility to enroll small business employers in California.
- Reviewed CCSB’s website. Currently, content is out of date and inaccurate. Website must undergo a complete overhaul for it to become a destination for CCSB consumers to obtain information, forms and educational materials. Engage web development experts on website design and refresh all material currently contained on the website.

Key Small Business Objectives for FY 2018-19

- Completed a comprehensive review of California’s small business market and CCSB’s role in that marketplace. The outcome of that review led Covered California’s board to approve issuance of an RFP for CCSB’s operating functions. This will enable CCSB to seek best-in-class enrollment and financial partnerships that will be needed to achieve its financial sustainability target.
- Positive year-over-year program net membership growth resulting in a total of 53,330 through March 2019. This key membership milestone keeps CCSB on track to achieve its sustainability target of 73,171 consumers by FY 2021-22.
- Developed a comprehensive consumer-retention strategy plan that improved consumer retention from 75 to 87 percent over the past fiscal period.
- Developed an online employer-direct enrollment portal that provided employers the opportunity to purchase coverage directly from Covered California for Small Business without the aid of an agent or general agent. Covered California for

Small Business's employer-direct sales channel reduces distribution costs for the carrier partners.

- Created an online application and database for Covered California for Small Business-only agents. Business Analytics acquired the online application software and created the same data fields and functionalities featured in CalHEERS for applicants who are interested in selling Covered California for Small Business only. Business Analytics currently maintains the database for these applications.
- Covered California for Small Business added additional alternative benefit plans to the current portfolio of plans to address consumer and agent requests for more rate-competitive plan offerings.
- Developed an additional sales channel with EaseCentral that expanded Covered California for Small Business's channel-partner portfolio to assist in driving the growth needed to achieve financial sustainability. This channel also provided the agent and general agent partners a means to submit new group enrollments electronically that will expedite the processing and effectuation of coverage.
- Covered California for Small Business eligibility and enrollment regulations were accepted into law, effective September 30, 2018.
- Covered California for Small Business revised its marketing messages and images to highlight that today's diverse workforce no longer accepts a one-size-fits-all approach to offering employer-based health insurance. The messaging and call to action was that today's workforce demands that individuals are provided the choice of plan, coverage and health care provider that give them the best value and affordability.

Key Small Business Accomplishments in FY 2017-18

- Covered California for Small Business developed and launched the 2018 agent and general agent incentive program for new group enrollment that directly competes with and addresses incentive programs announced by competitive small-group exchanges.
- Positive year-over-year program growth with current total membership of 44,330 through February 2018 and moving toward Covered California for Small Business's sustainability target of 58,000 consumers.
- Covered California for Small Business launched EaseCentral, an integrated software platform, to give small businesses and their employees access to Covered California for Small Business's plan choices, which will lead to better access to care.

Program Integrity Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	63	63	63
Personal Services	4,640,889	5,647,546	6,244,534
Operating Expenses	739,566	1,238,500	1,734,000
Total Expenses	\$5,380,455	\$6,886,046	\$7,978,534
Information Technology Support	-	-	658,622
ProRata / Sup. Pension Pay./ Other	638,918	777,431	753,710
Total Operating Costs	\$6,019,372	\$7,663,477	\$9,390,866

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes one new Career Executive Assignment, created using existing position authority to establish a Deputy Director position to assist the Director by providing broad oversight and management over the day-to-day operations of the Division, implementation activities of special projects and initiatives, and monitoring of performance goals.

This budget includes:

- \$888,000 for external audit services.
- \$371,000 for other operational expenses, which include general training, travel and office supplies.
- \$300,000 for analytics efforts.
- \$100,000 for specialized training services.
- \$75,000 for audit-specific software licenses.

Division Description

The Program Integrity Division identifies opportunities to help internal and external partners continuously improve Covered California’s consumer-focused operations. The division encourages accountability, transparency, effectiveness, efficiency and risk management by independently reviewing key business areas to help ensure compliance with federal and state laws, regulations and policies.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Manages, monitors and oversees all data-integrity initiatives to preserve data consistency, and accuracy within the core systems of the California Healthcare Eligibility, Enrollment and Retention System (CalHEERS) and with external entities.

- Improves data accuracy and reliability to support Covered California as a data-driven, evidence-based organization for its policy advancements, operational improvements, and strategic vision.
- Manages and oversees the user acceptance testing process by testing CalHEERS enhancements prior to implementation and resolving critical issues which may negatively affect consumers when they apply for and enroll in a Covered California plan.
- Conducts post-implementation review of the CalHEERS system functionalities to improve operational efficiencies and program compliance.
- Oversees and monitors an enterprise-wide risk-management reporting process to assist all divisions in their risk analysis and evaluation of organizational operations, internal controls, policies and procedures.
- Establishes safeguards by monitoring and overseeing an integrated and enterprise-wide fraud-management program, which requires collaboration and partnership with various internal and external entities.
- Manages and performs independent external and internal audit services to improve Covered California's operational efficiencies, effectiveness and program oversight.
- Improves compliance with federal and state regulations and mandates.

Key Objectives for FY 2018-19

- Maintained an enrollment information data accuracy rate above 99 percent between CalHEERS and carrier systems.
- Refined and enhanced monitoring tools to further support data integrity standards for the CalHEERS core systems, which achieved an accuracy rate above 99.9 percent.
- Enhanced the post-implementation review process, following CalHEERS system changes, to have a stronger emphasis on the consumer experience by analyzing over 2,800 consumer cases.
- Identified and prioritized issues, of which 91 percent were resolved and implemented into CalHEERS.
- Developed a comprehensive risk management plan and implemented an enterprise-wide risk-management software and reporting dashboard.
- Developed a fraud analytic tool to proactively identify fraud trends for early detection and prevention.

- Performed internal audits and issued audit reports with recommendations to improve operational effectiveness and efficiencies, while promoting compliance with regulations.

Key Accomplishments for FY 2017-18

- Enhanced the existing process of using key performance indicators to monitor each health and dental plan's performance of reconciliation efforts. This effort resulted in significant increases to the frequency and quality of carrier participation throughout the year.
- Enhanced the monthly enrollment reconciliation process between CalHEERS and external systems to include a standard dispute process. The dispute process is used to identify opportunities for improvement within technology and business operations.
- Performed user acceptance testing on every CalHEERS release to validate the performance of key system functionalities and identify system issues. These activities helped improve the consumer experience and journey.
- Enhanced the existing process for enterprise-wide risk management, which identified, documented, tracked, monitored and prioritized risks that may affect Covered California's goals and objectives.
- Implemented improvements to the integrated enterprise-wide fraud management program to help detect, prevent and deter potential fraud, waste and abuse.
- Performed internal audits and issued audit reports with recommendations to divisions to improve operational effectiveness and efficiencies, while promoting compliance with regulations.
- Coordinated several external audits performed by external entities.

Communications and Public Relations Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	20	20	20
Personal Services	2,093,806	2,388,473	2,076,417
Operating Expenses	2,798,637	2,590,000	2,690,000
Total Expenses	\$4,892,443	\$4,978,473	\$4,766,417
Information Technology Support	-	-	261,358
ProRata / Sup. Pension Pay./ Other	202,831	246,804	239,273
Total Operating Costs	\$5,095,274	\$5,225,277	\$5,267,048

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes an exempt position for the Director of Communication and Public Relations; authority per code 100503(m) at a monthly salary of \$16,543.

This budget includes:

- \$2,500,000 for public relations services.
- \$148,000 for other operational expenses, which include general training, travel and office supplies.
- \$42,000 for student assistants.

Division Description

The Communications and Public Relations Division is responsible for the ongoing public information and public relations functions of Covered California. These functions include developing, coordinating and executing an extensive proactive program of media relations and public communications.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Provides regularly updated information to the media and develops messaging. Staff respond daily to complex and sensitive media inquiries. Creates a strategic approach for general press, as well as target-audience media tailored to their specific needs and formats.
- Provides spokesperson services in English, Spanish and other languages and executes communication plans to reach specific ethnic groups.
- Coordinates large-scale open enrollment launch efforts.
- Holds press conferences.

- Creates press releases, op-eds and speeches.
- Analyzes data, identifies potential newsworthy stories and helps in the creation of award-winning issue briefs.
- Updates and enhances open enrollment campaigns to reach audiences on social media platforms and traditional news media outlets.
- Builds capacity for video and visual content development to meet changing information consumption habits.
- Produces and publishes a monthly employee newsletter.
- Coordinates the speakers' bureau.
- Provides communication expertise and support to other divisions to further their goals, including writing and graphic design services for several major agency publications like the rate booklet, annual report and external presentations.
- Strengthens the Communications and Public Relations Division within Covered California, identifying functions, skills and training with a special focus on tools to inform social listening and audience identification, as well as media monitoring and content creation.
- Develops an overarching strategy for Covered California's public-facing website content, which includes CoveredCA.com and HBEX.coveredca.com. Spearheads the website's design and updates its content.
- Enhances CoveredCA.com using user testing to ensure consumers find the information they need as they apply for coverage.

Key Objectives for FY 2018-19

- Conducted a two-stage bus tour for the sixth open enrollment period that generated substantial media coverage across multiple platforms: print, TV, radio and online. The "In an Instant" bus tour featured the Covered California bus wrapped with an image of a cyclist falling off his bicycle and landing on crutches to depict the theme that "Life can change in an instant." At stops throughout the state, local hip-hop and contemporary dance crews met the bus to illustrate the theme in a medium that resonates with Californians. The tour generated hundreds of news stories in media markets statewide and 191.6 million media impressions.
- Conducted a new effort to capture and distribute visual content from the bus tour on social media platforms, including the Facebook, Twitter and Instagram platforms as well as account posts by event participants (dancers, choreographers, elected officials and staff). The video and photography posts

broke new ground, with 55 Instagram Stories getting nearly 10,000 views and attracting 107 new followers.

- Planned and coordinated more than a dozen press conferences and teleconference calls with state and national media, issued more than 30 news releases (in English and Spanish) and continued answering questions from national and state media outlets.
- Conducted more than a dozen enrollment phone banks on local Spanish-language television and radio stations during open enrollment to maximize enrollment. The phone banks were hosted by local television personalities and featured representatives from Covered California.
- Participated in Facebook Live videos in Spanish to promote special enrollment.
- Hosted a Spanish-media roundtable to raise awareness of Covered California and promote enrollment.
- Participated in a town hall meeting with members of Congress that focused on the future of health care in California, which aired live on KCRA-TV throughout the Sacramento region.
- Helped produce, design and distribute a series of issue briefs that won a national PR News Platinum Award in the “external publications” category.
- Developed and implemented target segment outreach efforts that were nominated for a national award in the category of “multicultural campaign.”
- Conducted industry research in 2018-19 in advance of writing a request for proposal for public relations services amid extraordinary disruption in the public relations industry affecting how organizations communicate and the development of new tools and practices for reaching mass audiences. The selection process for a new firm will continue through FY 2018-19.

Key Accomplishments for FY 2017-18

- Conducted a three-stage bus tour for the fifth open enrollment period that generated substantial media coverage across multiple platforms: print, TV, radio and online. Dubbed “Covered in Art,” the bus tour featured local artists who painted permanent murals at community clinics and other locations across the state to promote health and attract attention to places where Californians can enroll. The tour generated coverage in every major media market in California, including hundreds of stories in media outlets statewide. Covered California generated more than 235 million media impressions nationwide during the open enrollment period in FY 2017-18, including national coverage associated with the effort to repeal and replace the Affordable Care Act. The bus also made a special

appearance in Los Angeles in January for the annual Kingdom Day Parade in honor of Martin Luther King Jr.

- Planned and coordinated more than a dozen press conferences and teleconference calls with state and national media, issued more than 50 news releases (in English and Spanish), conducted five phone banks in partnership with Spanish-language media and two in partnership with English-language media. Answered hundreds of calls from media outlets during the effort to repeal and replace the Affordable Care Act, including national outlets such as the New York Times, the Washington Post, CNN, Associated Press, Bloomberg, Politico and Kaiser Health News as well as every significant newspaper, television and radio station in the state.
- Upgraded the CoveredCA.com website in October 2017 to enable easier navigation on mobile devices.
- Developed new “Real Stories” videos, depicting first-person accounts of Californians sharing their experiences as enrollees and the impact health insurance has had on their lives.
- Planned and coordinated successful targeted-segment outreach and media activities to reach Latinos, African Americans, Asian/Pacific Islanders and LGBTQ communities, including TV and radio interviews on ethnic broadcast stations, Spanish TV phone banks, ethnic media roundtables, print-ready articles to ethnic publications, faith-based outreach and participation in special community events.
- Planned and coordinated “added value” interview segments at television and radio stations across the state, in both English and Spanish, to highlight the open enrollment period and answer consumer questions.
- Brought media attention to 15 studies, reports and analyses — some produced by Covered California — to inform the public and policy makers on the pros and cons of ongoing legislative and administrative policies affecting the Affordable Care Act.
- Maintained the @CoveredCAnews Twitter handle, earning more than 294,000 impressions and adding 109 new followers.

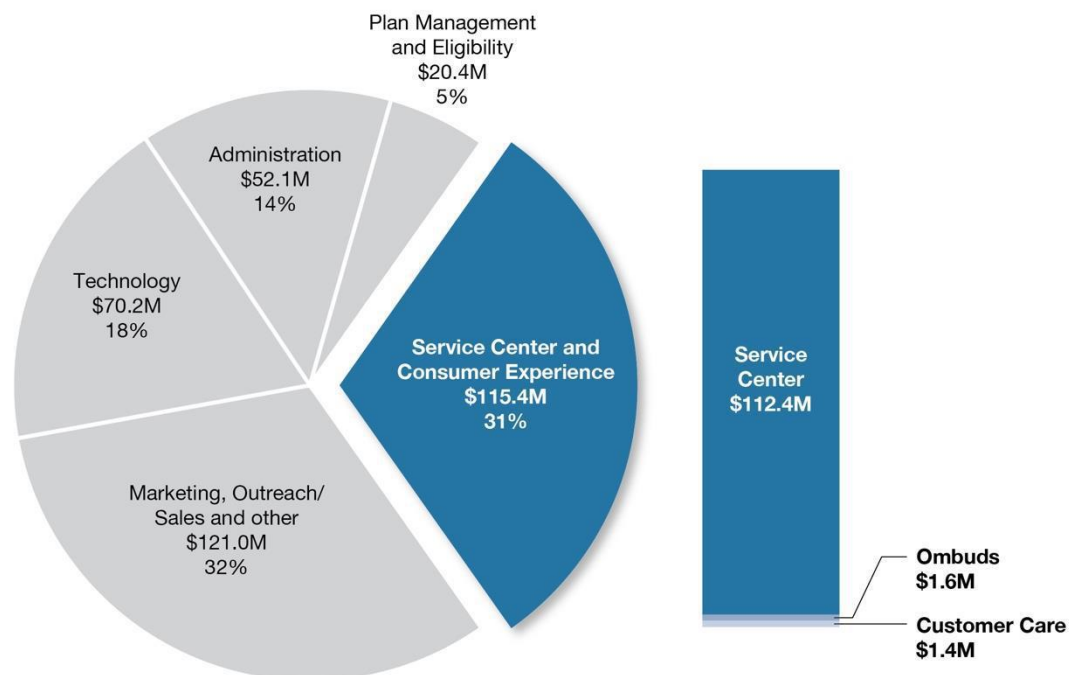
Service Center and Consumer Experience

Service Center and Consumer Experience includes the following divisions: Service Center, Ombuds Office and Customer Care. The total budget for FY 2019-20 is \$115.4 million.

Service Center and Consumer Experience– Multi-Year View

Fiscal Year	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	850	858	818
Personal Services	50,858,358	57,071,243	55,803,825
Operating Expenses	37,956,815	34,328,366	32,272,943
Total Expenses	\$88,815,173	\$91,399,609	\$88,076,768
Information Technology Support			17,551,631
ProRata / Sup. Pension Pay./ Other	8,620,316	10,587,871	9,786,267
Total Operating Costs	\$97,435,488	\$101,987,480	\$115,414,666

Service Center and Consumer Experience FY 2019-20 Budget



Service Center

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	837	838	798
Personal Services	50,127,633	55,256,331	53,782,585
Operating Expenses	37,916,071	34,099,366	31,766,943
Total Expenses	\$88,043,704	\$89,355,697	\$85,549,528
Information Technology Support	-	-	17,342,545
ProRata / Sup. Pension Pay./ Other	8,488,475	10,341,067	9,546,994
Total Operating Costs	\$96,532,180	\$99,696,765	\$112,439,066

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes the conversion of a portion of the Permanent Intermittent positions to 45 Permanent Full-Time positions to assist in the recruitment and retention of quality staff to support the ongoing operations of the Service Centers.

This budget removes one-time funding for the Covered California share of the Appeals Case Management System (ACMS).

This budget also includes:

- \$20,725,000 for call center support.
- \$9,053,443 for an agreement with CDSS for administrative law judge services to adjudicate appeals support.
- \$774,000 for other operational expenses, which include general training, travel and office supplies.
- \$500,000 for consulting services.
- \$432,000 for training services.
- \$275,000 for project management.
- \$7,500 for mailing and courier services.

Division Description

The Service Center provides comprehensive pre- and post-enrollment education and support to Covered California consumers by responding to consumer inquiries, enrolling consumers in health plans and promptly resolving challenges that prevent them from receiving health and dental benefits. These efforts ensure consumers receive the right care at the right time at an affordable price, retain coverage and are satisfied with Covered California products and services.

The Service Center consists of the following five operational branches.

Contact Center Operations Branch

Provides Tier 1 support for consumer assistance in application enrollment. Primary work completed is inbound calls through the Interactive Voice Response (IVR).

- Rancho Cordova and Fresno Operations
 - Inbound calls.
 - Manual work stream.
 - Surge assistance and health plan/county helpline (specialty team).
- Surge Vendor Operations
 - Provides between 200 and 600 staff depending upon call and chat volumes and time of year.
 - Inbound calls.
 - Manual work stream.
 - Chat (specialty team).
 - Bilingual teams.

Internal Compliance and Support Branch

Provides Tier 2 and Tier 3 support on complex or escalated consumer requests. Evaluates quality of inbound and outbound phone calls and keys paper applications.

- Priority Support Unit
 - Handles escalated issues from Service Center staff.
 - Provides social media support.
 - Resolves 1095-A disputes.
 - Works with qualified health plans issuers to address issues.
 - Handles Service Center CalHEERS tickets.
- Quality Assurance Unit
 - Monitors and evaluates incoming and outgoing phone calls.
 - Monitors and evaluates paper application keying.
 - Works on developing a process to evaluate additional work areas throughout the service centers.

Consumer Relations and Resolution Branch

Responsible for researching and resolving formal appeals that Covered California consumers file through the California Department of Social Services (CDSS).

- Appeals
 - Researches and handles appeals with a focus on informally resolving the issue.
 - Creates statement of positions and ensures all documentation is provided to the consumer and CDSS prior to scheduled hearing.
 - Attends formal hearings with administrative law judges (ALJ) from CDSS.
 - Implements the ALJ decisions.
 - Transfers cases to the Department of Managed Health Care (DMHC) when it is determined appropriate.
 - Works closely with the Office of Legal Affairs on second-level appeals submitted to the Center for Medicare and Medicaid Services (CMS).
 - Manages the CDSS contract for appeals-related activities.

- Escalations Unit
 - Resolves urgent and non-urgent access-to-care issues.
 - Works closely with all health plans to ensure they resolve access-to-care issues.
 - Responds to formal written complaints filed by consumers.
 - Resolves complex consumer cases, working with CalHEERS to submit help desk tickets requesting data fixes.
 - Provides primary program liaison assistance for DMHC and the Health Care Alliance (HCA).
 - Resolves complex system-error cases, working with the Program Integrity Division and Plan Management Division.
 - Aids the Ombuds Office, External Affairs and other areas.
 - Works closely with the Plan Management Division on concerns related to the health and dental plan issuers.
 - Manages the Medi-Cal Eligibility Database System (MEDS) contract and licensing distribution for the department.

Resource Planning and Management Branch

Schedules Service Center staff in an efficient and cost-effective manner while ensuring the Service Center meets consumers' needs.

- Administrative Support Unit
 - Provides liaison assistance for the Service Center with the following areas:
 - Human Resources: timekeeping and payroll processing.
 - Business Services.

- Workforce Management Unit

- Coordinates the various work streams to maintain a balanced workload and optimize productivity.
- Identifies and communicates trends that affect performance and makes recommendations.
- Forecasts and schedules Service Center operation staff.

Strategic Innovation and Implementation Branch

Focuses on efficiencies and improving the consumer experience as it pertains to vendor and contract management, budget oversight, IT and interactive voice response (IVR) projects and Service Center provisioning.

- Identifies trends that affect performance.
- Provides data analytics to support leadership decisions.
- Provides oversight and management of the budget.
- Provides project support for the entire lifecycle of IT projects for the Service Center.
- Handles vendor and contract management.
- Acts as IT liaison for onboarding and off boarding.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives, Service Center

- Processes consumer inquiries and assists consumers with enrollment.
- Provides warm transfers to counties via the “Quick Sort” process for individuals who are eligible for other programs.
- Provides support for enrollment assisters, agents and health plans.
- Conducts outgoing workload, such as incoming and outgoing mail operations, data entry for submitted paper applications and manual verifications, and offline work.
- Manages and oversees the IRS Form 1095-A process, including the processing of 1095-A disputes.
- Provides Help Desk ticket backlog support.
- Appeals staff work to informally resolve appeals when possible and within regulations. If an informal resolution cannot be reached with the appellant, or if the appellant prefers a formal hearing, Appeals staff represent Covered California’s position at an administrative hearing.

- Controls operational costs to deliver products and services that offer a high value to our consumers.
- Identifies and implements new technology and Service Center tools to effect operational efficiencies to better serve consumers.
- Invests in staff training and development to maximize workforce performance.
- Streamlines business processes to seek operational efficiencies and increase quality of work.

Key Objectives for FY 2018-19

- Handled 1.8 million consumer calls from July 2018 through March 2019, with more than 900,000 of these during open enrollment.
- Completed more than 540,000 manual work streams from July 2018 through March 2019 and continued to plan for ongoing workflow.
- Closed more than 14,000 escalations and formal complaints from July 2018 through March 2019.
- Closed more than 8,000 consumer appeals from July 2018 through March 2019.
- Resolved informally more than 5,700 appeals from July 2018 through March 2019.
- Increased informal resolution rate for the appeals workload.
- Collaborated with Policy, Eligibility and Research Division during open enrollment on outbound contact campaign for over 52,000 consumers.
- Processed and resolved more than 7,000 IRS Form 1095-A disputes from July 2018 through March 2019.
- Procured and initiated work with vendor Dimension Data to complete the service center assessment for improvements in:
 - Customer focus: contact handling, customer experience and voice of the customer.
 - People: recruiting and hiring, organization structure, climate and engagement, staff and leader training and development.
 - Support processes: quality assurance and WFM, reporting and analytics, key metrics and agent support.
 - Work and performance: work processes, service center performance and cost.

- Technology: hardware components, software components, infrastructure and automation.
- Worked with Information Technology Division on implementing:
 - Chatbot “CiCi” to assist consumers 24/7.
 - Post-call survey to solicit consumer feedback.
 - Call Whisper.
 - Implementation of new customer-relationship management system, Salesforce.
- Provided continued assistance with Certified Insurance Agent overflow calls.
- Extended business hours: during the sixth open enrollment period, the Service Center, in partnership with the surge vendor, extended the business hours past the standard open enrollment hours of 8 a.m. to 8 p.m., Monday through Friday, to assist consumers:
 - Extended business hours until 10 p.m.: December 10, 11, 12, 17, 18, 19 and 20; January 14, 16, 17 and 18.
 - Extended business hours until midnight: December 13, 14, 15, and 21; January 15.
- Implemented process to proactively handle retro terminations and non-payment terminations by having the liaisons on the phone with the consumer contacting the health insurance company to handle the issue.

Key Accomplishments for FY 2017-18

- Handled more than 2.5 million consumer calls from July 2017 through June 2018.
- Completed more than 611,000 manual work streams from July 2017 through June 2018.
- Increased the service level of Asian-language inbound calls by 18 percent, and decreased abandonment by 12 percent.
- Collaborated with internal and external stakeholders to improve the consumer experience.
- Worked with the Information Technology Division for successful transition of Service Center technology.
- Processed and resolved 11,377 IRS Form 1095-A disputes from July 2017 through June 2018.

- Continued assistance with Certified Insurance Agent overflow calls.
- Extended business hours during the fifth open enrollment period to assist consumers on key dates.
- Recruited, hired and trained all available phone staff to ensure Service Center was fully operational at the beginning of open enrollment, ultimately reducing overall Service Center vacancy rate to 6 percent.
- Implemented “BetterIf” suggestion box for employee feedback.
- Increased overall appeals efficiencies and consistency of processes and procedures by collaborating with internal and external stakeholders.
 - Closed more than 16,300 escalations and formal complaints from July 2017 through June 2018.
 - Closed 14,477 consumer appeals from July 2017 through June 2018.
 - Informally resolved more than 8,200 appeals from July 2017 through June 2018.
 - Increased the informal resolution rate.

Ombuds Office

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	13	13	13
Personal Services	730,725	1,090,055	1,181,027
Operating Expenses	40,744	215,000	117,000
Total Expenses	\$771,469	\$1,305,055	\$1,298,027
Information Technology Support	-	-	135,906
ProRata / Sup. Pension Pay./ Other	131,840	160,422	155,527
Total Operating Costs	\$903,309	\$1,465,477	\$1,589,461

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes:

- \$75,000 for specialized training.
- \$42,000 for other operational expenses, which include general training, travel and office supplies.

Division Description

The Ombuds Office serves as an objective, unbiased and accessible resource to Covered California consumers when other resolution or customer service channels have been exhausted. The Ombuds Office also identifies systemic challenges affecting consumers and promotes solutions to prevent issues from recurring.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Clarifies and explains Covered California's divisions and policies to consumers who have sought assistance from the Ombuds Office.
- Assists consumers in understanding the outcome of their case.
- Serves as an objective resource in implementing eligibility appeals decisions for Covered California as a result of administrative law judge orders.
- Works directly with the consumer, and the county if applicable, to make requested changes to the consumer's coverage as a result of an appeal decision.
- Works closely with Covered California consumer advocates, health insurers, the California Department of Health Care Services, regulators and others to manage Covered California consumer resolutions.
- Conducts evidence-based research to assist Covered California divisions in determining case resolutions.

- Analyzes data from the Ombuds Office, other Covered California divisions and external partners that understand Covered California consumers to identify potential Covered California divisional changes.
- Shares objective findings and operational recommendations to Covered California and stakeholder groups and monitors the progress of each recommendation.
- Identifies systemic issues and solutions to decrease enrollment barriers and enhance the overall consumer experience.
- Assists consumers with proper and timely customer service through several customer service channels.
- Ensures the organization remains in compliance with state law by implementing appeals decisions within the required timeframe.

Key Objectives for FY 2018-19

- Handled 1,854 calls through the toll-free Ombuds Office phone line from July 2018 to March 2019.
- Assisted 472 consumers with complex cases and an additional 572 consumers by providing information, answering inquiries or referring them to an appropriate service channel from July 2018 to March 2019.
- Implemented 2,606 final appeal decisions ordered by an administrative law judge from July 2018 to March 2019.
- Reduced the staff vacancy rate by 23 percent to the current rate of 8 percent.
- Worked with the Information Technology Division to implement call-recording software to record incoming and outgoing calls for all Ombuds Office staff.
- Enhanced the current procedures by streamlining the application-disclaimer process resulting in a reduced call time with consumers.
- Implemented Customer Relationship Manager data reports for the Ombuds Affairs Unit and the Appeals Fulfillment Unit to help monitor workload and identify areas of improvement for the organization.

Key Accomplishments for FY 2017-18

- Established an Appeals Fulfillment Unit to ensure appeals decisions are implemented timely and in compliance with state law.
- Developed an Ombuds Affairs Unit to handle consumer inquiries, conduct root-cause analysis to understand consumer issues and recommend operations changes to fix those issues.

- Hired two managers and six analysts.
- Created more than 25 Ombuds-specific task guides and procedural documents.
- Set up consumer-friendly contact resources such as toll-free phone and fax lines, an informational page on CoveredCA.com, an email address and a downloadable PDF contact form.
- Created and implemented an Ombuds portion of the Covered California CRM tool to help track and identify consumer issues.
- Implemented 1,936 final appeal decisions ordered by an administrative law judge from November 2017 to June 2018.
- Handled 1,480 calls through the toll-free Ombuds Office phone line from January to June 2018.
- Assisted 192 consumers with complex cases and an additional 321 consumers by providing information, answering inquiries or referring them to an appropriate service channel from January to June 2018.

Customer Care Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	0	7	7
Personal Services	-	724,856	840,213
Operating Expenses	-	14,000	389,000
Total Expenses	\$0	\$738,856	\$1,229,213
Information Technology Support	-	-	73,180
ProRata / Sup. Pension Pay./ Other	-	86,381	83,746
Total Operating Costs	\$0	\$825,237	\$1,386,138

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes:

- \$375,000 for consulting services.
- \$14,000 for other operational expenses, which include general training, travel and office supplies.

Division Description

In the ongoing effort to optimize the consumer experience, Covered California created a Customer Care Division to coordinate work across the organization to improve the consumer's experience purchasing and accessing health care. This effort is fundamental to Covered California's purpose of making health insurance more affordable and easier to purchase for individuals and small businesses.

The division was established in FY 2018-19 to develop, implement and refine an organization-wide multidisciplinary consumer-experience strategic approach.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Establishes and maintains department-wide relationships and creates cross-functional policies to facilitate a consistent and connected experience for Covered California consumers.
- Creates and maintains a consumer-centric culture across the organization.
- Elevates and centralizes policy formulation directed at improving the experience of its consumers.
- Develops external engagement and communication policies to engage external stakeholders, consumers, advocates and health plan issuers in the development and implementation of Covered California's consumer-experience strategic plan.

Key Objectives for FY 2018-19

- Developed the Customer Care Division with Covered California leadership through personalized meet-and-greet sessions to ensure alignment, partnership and collaboration for consumer-focused projects and programs.
- Under the guidance of the newly appointed division director, recruited and hired the following staff:
 - Senior manager, operations: high-level accountability that includes driving organizational effectiveness for key efforts, managing and coaching division staff and developing consumer-experience recommendations via internal and external subject-matter experts, including health plan issuers, other state-based exchanges, academics and literature.
 - Lead performance and reporting analyst: accountable for gathering and monitoring data analytics to measure and improve the consumer experience, including the development of an enterprise-wide consumer-satisfaction dashboard.
 - Lead customer insight specialist: focused on gathering information from a variety of internal resources, including the Service Center, Outreach and Sales and Marketing Divisions to identify opportunities to improve the consumer experience. This “anecdotal” will be used in conjunction with research data (e.g., survey instruments, consumer focus groups and consumer testing) to tease out experience trend and innovation opportunities.
- Developed governance model to prioritize consumer-experience initiatives. This model, in the pilot stage, will enable Covered California to analyze initiatives that will improve the consumer experience by using an enterprise-wide view of projects and initiatives.
- Led and supported various projects to resolve issues and improve experience:
 - Developed and managed ongoing accountability of content for Covered California’s newly launched “chatbot,” CiCi.
 - Continuously researched and discussed consumer-choice architecture, including technology and health literacy improvements, to be implemented for open enrollment 2021.
 - Launched an integrated workgroup for CalHEERS change requests to improve Certified Insurance Agents’ experience, including commission-reconciliation improvement and agent of record accuracy.

- Actively participated in the GetInsured account transfer work, taking into account the consumer and issuer perspective to ensure we build a stronger core infrastructure for Covered California's online application.
- Participated in Salesforce discussions with an enterprise-wide view of consumer-experience reporting and process efficiencies to deliver efficient and accurate service support to consumers.
- Joined in Service Center initiatives, including the Platinum Performance Project, that focused on key findings needed to refine and further develop Covered California's consumer-experience strategy.
- Launched Covered California's Creative Café to bring innovation to the forefront and encourage collaboration throughout the organization. This project has five primary objectives:
 - Improve external and internal Covered California experience(s).
 - Build on the good work that has already been done.
 - Promote innovative thinking among staff.
 - Optimize efforts to create ease and efficiency.
 - Encourage collaboration throughout our environment.

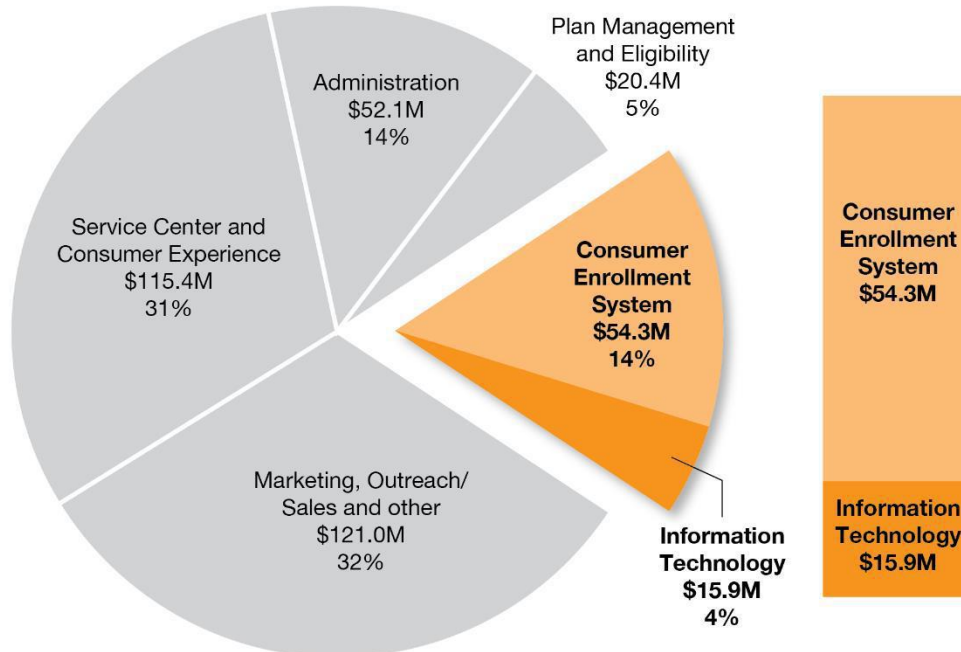
Technology

Technology includes the Information Technology (IT) Division and the consumer enrollment system, the California Healthcare Eligibility, Enrollment and Retention System (CalHEERS). The total budget for FY 2019-20 is \$70.2 million.

Technology– Multi-Year View

Fiscal Year	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	72	76	82
Personal Services	7,378,998	9,261,742	10,527,631
Operating Expenses	47,792,093	59,901,600	57,875,892
Total Expenses	\$55,171,092	\$69,163,342	\$68,403,523
Information Technology Support			846,800
ProRata / Sup. Pension Pay./ Other	730,191	937,853	981,019
Total Operating Costs	\$55,901,283	\$70,101,195	\$70,231,342

Technology FY 2019-20 Budget



Information Technology Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	72	76	82
Personal Services	7,378,998	9,261,742	10,527,631
Operating Expenses	15,112,253	23,016,974	3,581,760
Total Expenses	\$22,491,252	\$32,278,716	\$14,109,391
Information Technology Support	-	-	846,800
ProRata / Sup. Pension Pay./ Other	730,191	937,853	981,019
Total Operating Costs	\$23,221,443	\$33,216,569	\$15,937,210

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes an exempt position for the Director of Information Technology; authority per code 100503(m) at a monthly salary of \$17,839.

The Information Technology budget for FY 2019-20 proposes to shift the budgets for specialized IT services to their respective divisions as well as distributing general IT support across the department.

This budget includes six new positions, two Information Technology Specialist I positions for the application development office, one Information Technology Specialist I for audio visual support, one Information Technology Specialist I for system monitoring, one Information Technology Specialist I for the Enterprise Project Management Office, and one Information Technology Specialist II for data management and reporting.

This budget includes:

- \$3,581,760 for IT consulting services.

Division Description

The Information Technology (IT) Division provides technology and security services and solutions to all divisions, consumers and stakeholders to support effective, secure and efficient operations and enrollment services in a manner that is financially sustainable. This effort includes providing oversight of the ongoing development and operations of CalHEERS for Covered California.

Central to IT is ensuring the best possible consumer experience throughout the enrollment process. IT does this by monitoring the technology landscape for strategic opportunities, gathering requests for services, evaluating possible solutions, managing an effective IT governance process, providing project management and oversight and implementing or overseeing solutions internally or through appropriate outsourcing strategies.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Provides governance and management over the Covered California Enterprise IT architecture and IT projects.
- Supports Covered California's business applications and technical solutions.
- Provides oversight of information technology security and privacy via the Centers for Medicare and Medicaid Services (CMS) MARS-E security and privacy framework, managing and submitting the various CMS-required security and privacy artifacts.
- Protects, stores, monitors and manages access and security of Covered California data assets.
- Manages the technical infrastructure and network for Covered California.
- Provides a centralized service desk for Covered California.

Upcoming key initiatives include:

- Continued work on enhancing the Customer Relationship Management tools available to Service Center representatives who assist consumers and agents.
- Implementing additional consumer-experience improvements, including additional opportunities for self-service through the chatbot and interactive voice-response system, such as password resets, consumer surveys and requests for information.
- Enhancing the automated solution for the processing of consumer verification documents with a goal of increasing automation to 40 percent of the processing in this area.
- Continuing work to enhance Covered California's technology tools for Certified Enrollment Counselors and Certified Insurance Agents and working with Covered California for Small Business on the procurements in this area.
- Collaborating with the Human Resources Branch to implement a human capital management system to significantly improve Covered California's internal administrative processes.
- Completing the balance of the IT infrastructure refresh and implementing a more strategic and balanced refresh program for the future to avoid large one-time peaks in infrastructure-spending needs, including additional movement of infrastructure and applications to cloud services when appropriate.

- Identifying and implementing a portfolio management solution to assist in evaluating and selecting the highest value projects (both IT and non-IT) for the organization.
- Working with CalHEERS and Covered California divisions to design, build and implement business solutions to support state initiatives to expand assistance for consumers seeking health insurance.

Key Objectives for FY 2018-19

- Completed triennial package for CMS to renew Covered California's authority to operate the exchange and authority to connect to federal systems. Approval and re-authorization are expected in August 2019.
- Completed packages for CMS and the Internal Revenue Service to extend the boundary of the CalHEERS solution to allow interconnection with Covered California's Consumer Relationship Management system and other IT solutions to provide more-comprehensive customer service and management for the organization.
- Completed approximately 50 percent of the first refresh cycle for IT infrastructure for Covered California since its inception. The refresh covers staff desktop computers and backend IT infrastructure. It includes redesigning a portion of the infrastructure, moving it to the cloud and updating all software to the most current versions.
- In coordination with the Communications and Public Relations Division, completed a refresh of the CoveredCA.com consumer and business websites, including necessary enhancements to ensure full compliance with more stringent Americans with Disabilities Act laws taking effect on July 1, 2019.
- Completed a transition of Covered California's CRM tools to Salesforce.com, providing an improved and more flexible platform for all Covered California divisions that service consumers, including the Service Center, Ombuds Office and the Agent Service Center.
- Implemented a solution for the processing of consumers' verification documents that currently automates the handling of approximately 20 percent of the documents.
- Worked with the Plan Management Division to pilot and integrate into CalHEERS an automated verification of special enrollment eligibility. This solution will reduce delays consumers may experience while waiting for eligibility for special enrollment to be cleared.
- Worked with Service Center to implement a chatbot (CiCi) on the Covered California website. The initial focus was to provide an automated path for

consumers to receive assistance with login issues (one of the top call drivers). CiCi helped achieve that goal and more, giving automated answers to questions in 84 subject areas.

- Incorporated text message capability, providing an easy way for consumers to get up-to-date information from Covered California if they opted in to receiving text messages.
- Transitioned the IT Division to use an Agile development methodology that has provided faster business value both internally and externally on more than 30 projects that were completed in the fiscal year. In addition, The IT Division has provided training and coaching to several other programs within Covered California to expand the use of Agile methodologies.

Key Accomplishments for FY 2017-18

- CoveredCA.com underwent a mobile redesign to allow consumers to access the website and use all features on any mobile device. Performance was also improved so upload times are noticeably faster.
- Implemented enhanced executive and management dashboards to improve operations during renewal and open enrollment.
- Created webpages and customer relations tools to assist in setting up the Covered California Ombuds Office.
- Completed a transition of Service Center technologies.
- Developed a new system and decommissioned a vendor-hosted solution for recruiting and managing 5,000 enrollment partners.
- Completed required IRS Safeguard review documentation, including the Safeguard security report and corrective action plan.
- Established Covered California's continuous security-monitoring program.

California Healthcare Eligibility, Enrollment and Retention System (CalHEERS)

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	0	0	0
Personal Services	-	0	0
Operating Expenses	32,679,840	36,884,626	54,294,132
Total Expenses	\$32,679,840	\$36,884,626	\$54,294,132
Information Technology Support	-	-	0
ProRata / Sup. Pension Pay./ Other	-	0	0
Total Operating Costs	\$32,679,840	\$36,884,626	\$54,294,132

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget assumes a cost allocation percentage (CAP) of 87.62 percent DHCS and 12.38 percent Covered California from July to September 2019 and an October 2019 to June 2020 CAP of 87.41 percent DHCS and 12.59 percent Covered California. The budgeted cost for FY 2019-20 is \$54,294,132.

This budget includes \$14.0 million for one-time costs associated with implementing the new state subsidy and individual mandate.

Division Description

The California Healthcare Eligibility, Enrollment and Retention System (CalHEERS) project is the system jointly sponsored by Covered California and the California Department of Health Care Services, with the assistance of the Office of Systems Integration for project-management services. The project is governed by an executive steering committee that represents each of the participating agencies and has guided the project since its inception.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Enhancement, maintenance and operations of the CalHEERS solution to support eligibility determination and enrollment in Covered California and Medi-Cal.
- Acts as a liaison between sponsors and partner agencies at the federal and state level and the systems integrator for operational coordination and efficiency.
- Integrates with health insurance companies for enrollment.
- Federal and state reporting, management and interface responsibilities.
- Project-management services.

- Continues to implement operational improvements from the CalHEERS roadmap to ensure the organization’s technical infrastructure is properly maintained and secured, supports capacity demands and achieves business goals.
- Appropriately equips authorized end users with the tools necessary to serve consumers effectively and to handle exception situations.
- Ensures business partners are able to receive, exchange and reconcile appropriate consumer information in a timely fashion.
- Strives to continuously streamline and enhance the consumer experience during enrollment and while transitioning between various programs available through the Affordable Care Act.

Key Objectives for FY 2018-19

- Processed more than 1.3 million renewals for the 2019 plan year (30 percent more and six days faster than the previous year).
- Processed more than 335,000 new enrollments during the 2019 open enrollment period.
- Processed 1.15 million 1095-A forms for the 2018 plan year on time, without exceptions.
- Updated federal reporting to CMS, including required reporting for carrier reimbursement of Advanced Premium Tax Credits.
- Added automation capabilities to reduce Service Center workload for conditionally eligible cases by sending the consumer’s verification documents to a document imaging and verification system vendor and processing the responses in re-determining consumers’ eligibility.
- Allowed counties and service centers to create and manage users for their own organizations.
- Continued to improve the online user experience focused on renewals, reporting a change, secure mailbox and managing verifications.
- Improved end-user experience for verifying lawful presence by reducing calls to CMS by 48 percent. In addition, 42 percent of the Step 2 cases are resolved automatically without any user actions.
- Implemented Shop and Compare Tool capability to the cloud.
- Reduced CalHEERS application release downtime by 5,000 hours (a 68 percent reduction) in 2018, compared to the previous year.

- Improved user experience by reducing ticket resolution time for county of responsibility/de-link tickets from 50 days to just over 12 hours.
- Reduced average weekly calls of verification services to CMS following release 18.9:
 - Verify lawful presence: 38.25 percent.
 - Social Security Administration: 35.93 percent.
 - Annual household income: 46.30 percent.
 - Non-ESI MEC: 12.63 percent.
- Seventy-three percent of users can successfully reset their password without technical help compared to 54 percent in the previous year (implemented in release 18.10).
- Updated system to comply with new Section 508 of the federal Rehabilitation Act.

Key Accomplishments for FY 2017-18

- Processed more than 1 million renewals for the 2018 plan year.
- Processed more than 400,000 new enrollments during the 2018 open enrollment period.
- Updated federal reporting to the Centers for Medicare and Medicaid Services, including required reporting for carrier reimbursement of Advanced Premium Tax Credits.
- Added capabilities for insurance agencies to manage multiple agents within their businesses.
- Overhauled the single streamlined application for consumers, including adding a fully mobile experience.
- Supported the technical infrastructure to launch a comprehensive provider directory for consumers shopping for plans.
- Developed automated functionality to facilitate moving Anthem consumers to new plans in their regions.
- Completed Form 1095-A processing for the 2017 plan year on time, with a very small percentage of consumers requiring corrections.

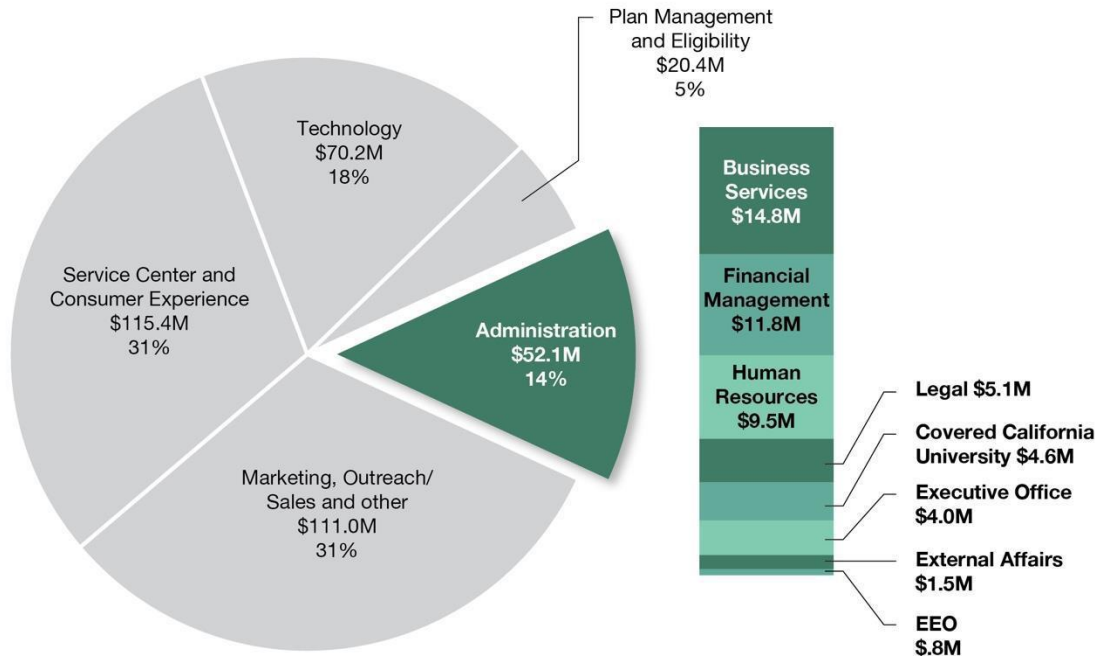
Administration

Administration includes the following program areas: The Executive Office, the Equal Employment Opportunity Office, the Office of Legal Affairs, the External Affairs Division, the Financial Management Division, the Business Services Branch, the Human Resources Branch and Covered California University. The total budget for FY 2019-20 is approximately \$52.1 million.

Administration– Multi-Year View

Fiscal Year	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	220	223	227
Personal Services	22,247,766	24,082,291	26,516,987
Operating Expenses	12,305,934	17,410,401	20,501,776
Total Expenses	\$34,553,700	\$41,492,692	\$47,018,763
Information Technology Support			2,373,130
ProRata / Sup. Pension Pay./ Other	2,231,140	2,751,859	2,715,749
Total Operating Costs	\$36,784,840	\$44,244,552	\$52,107,642

Administration FY 2019-20 Budget



Executive Office

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	8	8	9
Personal Services	2,193,053	2,518,484	2,801,104
Operating Expenses	450,624	911,500	1,040,884
Total Expenses	\$2,643,677	\$3,429,984	\$3,841,988
Information Technology Support	-	-	94,089
ProRata / Sup. Pension Pay./ Other	81,132	98,721	107,673
Total Operating Costs	\$2,724,810	\$3,528,705	\$4,043,749

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Codes 100500 and 100503, this budget includes exempt positions for:

- Executive Director, Operations; authority per code 100500(i) at a monthly salary of \$36,400.
- Chief Deputy Executive Director, Program; authority per code 100503(m) at a monthly salary of \$22,855.
- Chief Deputy Executive Director, Operations; authority per code 100503(m) at a monthly salary of \$18,880.
- General Counsel; authority per code 100503(m) at a monthly salary of \$19,360.
- Deputy Chief Operations Officer; authority per code 100503(m) at a monthly salary of \$11,667.

This budget includes one new Staff Services Manager I position to assist with talent management and succession planning.

This budget includes:

- \$431,324 for training services, which include the Covered California Leadership Academy.
- \$346,000 for consulting services
- \$149,560 for other operational expenses, which include general training, travel and office supplies.
- \$114,000 for professional memberships.

Division Description

The Executive Office develops organizational strategy and provides leadership direction in concert with the Covered California Board of Directors. Executive Office staff are responsible for Covered California's day-to-day operations and are tasked with facilitating and supporting Covered California's employees and a broad community of individuals and groups to provide customers (including staff, the board, stakeholders

and the public) with the direction, information, tools and support they need. The Executive Office does this by mentoring, providing leadership, listening, learning and adjusting efforts to meet goals and serve consumers.

Talent management and succession planning provides strategic talent leadership to ensure Covered California is considered an employer of choice and can attract, develop, retain and recognize the best talent.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Develops and implements high-level strategies to ensure the availability of affordable health insurance and enhance quality and access.
- Makes major management decisions about the overall operations and resources of Covered California. Ensures that Covered California operates in a responsive, transparent and reliable manner.
- Acts as the main point of communication between the Board of Directors and Covered California's operations. Facilitates communication and productive relationships between the Board of Directors and various stakeholders, such as consumers, providers, health insurance companies and employers.
- Sponsors the Covered California Leadership Academy to ensure Covered California has a strong bench of future leaders who can navigate the organization through the complex changes and constant challenges facing state exchanges.
- Assists leadership in identifying common themes for improvement at the department and division level and creates an overall engagement strategy.
- Oversees responsibilities for ensuring effective employee recognition is incorporated into the organizational culture in support of Covered California's strategic pillars and values.
- Develops, implements and monitors a workforce plan that aligns staffing and competencies with the department's current and future strategic business needs.
- Builds a targeted and sustainable succession plan for key senior roles.
- Conceptualizes, builds and rolls out learning solutions that center on career development and career ladders and increase the team's ability to be net talent exporters.
- Oversight responsibilities for the comprehensive career-development program. Such a program invests in the professional development of employees, which results in knowledge transfer throughout the department and increased employee engagement and retention. It prepares employees for career advancement within Covered California.

Key Objectives for FY 2018-19

- Expanded innovation practices across the organization through workshops focused on enhancing a culture of encouraging innovative thinking through skill building, tools and mindsets that will lead to process improvements, new approaches to problem solving and increased consumer satisfaction.
- Successfully launched and completed the first Covered California Academy program with a select group of managers and key staff who participated in 13 full-day classes over a period of six months. Developed resources and tools for academy alumni to continue learning and networking, connecting and engaging with fellow leaders. Launched the second cohort in spring 2019.
- Enhanced ongoing comprehensive employee-engagement surveys and related activities targeting statewide objectives and division-specific action plans.
- Started “Covered California Live,” all-staff monthly meetings centered on motivating, engaging and listening to employees. Such meetings include a regular meeting agenda providing the opportunity for everyone to discuss, connect and learn as one team.
- Designed and created tools and resources focused on developing a strong collaborative culture. Conducted a multi-division workshop for participants to gain a better understanding of the various program areas, as well as to discuss strategies for achieving shared goals and approaching shared opportunities to meet common challenges.
- Implemented various strategies supporting the employee-recognition program that offers formal, informal and everyday acknowledgment. Such strategies established and maintained a recognition culture at Covered California.
- Implemented various strategies outlined in the 2017-20 Covered California workforce and succession plan outlining the strategic way forward to meet the human-capital management and workforce needs for Covered California. The plan is consumer focused, data driven, team based, continuously improving and based on population.
- Developed workshops in support of the comprehensive Career Management and You program and conducted trainings throughout the organization to help establish an environment at Covered California that promotes job mastery, professional development and career-planning activities.

Key Accomplishments for FY 2017-18

- Enhanced ongoing comprehensive employee engagement surveys and related activities targeting statewide objectives and division-specific action plans.
- Implemented various strategies supporting the employee-recognition program that offers formal, informal and everyday acknowledgment. Such strategies established and maintained a recognition culture at Covered California.
- Developed the 2017-20 Covered California workforce and succession plan outlining the strategy to meet human-capital management and workforce needs for Covered California. The plan is consumer focused, data driven, team based, continuously improving and based on population.
- Began a comprehensive Career Management and You program that established an environment at Covered California that promotes job mastery, professional development and career-planning activities.
- Implemented the Covered California Leadership Academy. The purpose of the academy is to ensure that managers and key staff at Covered California are equipped to successfully manage and lead the organization. Each year, the program will be delivered to a cohort of 15 to 20 selected managers and key staff in 13 full-day classes over a period of five to six months. Over time, Covered California would like to enroll 200 to 300 managers in the program. The Leadership Academy will develop leaders who:
 - Are well prepared to achieve the mission, vision, values and strategic goals of Covered California.
 - Understand the intricacies of health insurance and can navigate the organization through the complex changes and challenges facing state health-benefit exchanges.
 - Demonstrate leadership skills that foster nimble and innovative thinking and action.
 - Appreciate and demonstrate cross-divisional collaboration, trust building and decision-making.

Equal Employment Opportunity Office

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	2	4	4
Personal Services	232,785	339,431	407,842
Operating Expenses	224,153	300,700	296,000
Total Expenses	\$456,938	\$640,131	\$703,842
Information Technology Support	-	-	41,817
ProRata / Sup. Pension Pay./ Other	20,283	49,361	47,855
Total Operating Costs	\$477,221	\$689,491	\$793,514

Highlights for Approved FY 2019-20 Budget and Key Changes

The budget maintains existing staffing levels and funding comparable to FY 2018-19 to maintain a fully functioning EEO program relative to Covered California's size and as mandated by federal and state laws.

This budget includes:

- \$220,000 for litigation support.
- \$33,000 for EEO consulting services.
- \$30,000 specialized training.
- \$13,000 for other operational expenses, which include general training, travel and office supplies.

Division Description

The Equal Employment Opportunity (EEO) Office is responsible for implementing, coordinating and monitoring civil-rights compliance for Covered California's workforce and consumers. The EEO Office ensures that Covered California is compliant with federal and state laws regarding diversity, equity and accessibility. The EEO Office also works with other program areas to develop initiatives that increase accessibility and foster diversity. It reports on appointments and brings issues regarding equal employment opportunity to the executive director and recommends appropriate action.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Advises and acts as a resource to management regarding equal employment opportunity and work-diversity laws and rules.
- Administers Covered California's equal employment opportunity program in accordance with applicable laws and internal policies.
- Provides department-wide leadership and advice to staff and management on the implementation and maintenance of non-discrimination policies, procedures and practices.

- Civil rights training: Departmental training on diversity and accessibility is managed by the EEO Office. The EEO Office is responsible for planning and ensuring compliance with state mandated training, such as sexual harassment and bullying prevention described by SB 1343. Mandatory training on diversity and disability access is provided annually by EEO Office staff in addition to any requests for program specific training.
- Responds to complaints regarding employment practices, language access and denial of services related to discrimination or unlawful harassment.
- Administers Covered California's Reasonable Accommodation program, ensuring appropriate processing of reasonable accommodation requests in accordance with applicable laws and internal policies.
- In accordance with Workforce Analysis requirements, identifies and evaluates underutilization of racial, ethnic and gender groups, and creates an action plan for eliminating non-job-related employment barriers.
- Administers Covered California's upward-mobility program and evaluates upward mobility employment goals.
- Provides advisory support to Covered California's Disability Advisory Committee.
- Coordinates and monitors processes that ensure customers, including limited-English-speaking or non-English-speaking customers, are provided equal access to available services and information within the organization.
- Represents EEO interests on an enterprise level.
- Responds to customer complaints of unfair treatment or discrimination in accordance with state and federal laws.
- Fosters a healthful work environment by providing non-discrimination and diversity training to employees and management within the organization.

Key Objectives for FY 2018-19

- Hired an analyst and a specialist to increase response time, address backlog in record-keeping and other office tasks and to provide more comprehensive services.
- Participated in the creation of the Enterprise Risk Committee, providing feedback on criteria. The EEO Office now serves as a participant on this committee, offering its perspective on civil rights, accessibility and other EEO related risks.
- Provided consultation to employees and managers who raised questions about accessibility and discrimination in the workplace. Investigated complaints and presented findings for departmental action.

- Transferred tracking of reasonable-accommodation cases, services and equipment to a database to reduce redundancy, providing access for multiple EEO staff.
- Responded to over 300 referrals or requests for reasonable accommodation, working with other units to ensure thorough and timely assistance.
- Coordinated the delivery of the mandated sexual-harassment prevention training to Covered California's managers and staff to meet updated government code requirements.
- Provided department-wide training tailored to the roles and responsibilities of rank and file employees, supervisors and managers regarding EEO and reasonable accommodation.
- Completed the bilingual language survey and analyzed its results to determine whether Covered California has adequate staffing and language resources for our consumers. The results showed Covered California has adequate staffing and provides more than minimum resources for consumers.
- Completed the annual workforce analysis to ensure the department is meeting expectations with recruitment and retention of a diverse workforce.
- Provided technical and advisory assistance to the Disability Advisory Committee, which increased its digital presence this year with the addition of newsletter articles and email blasts.

Key Accomplishments for FY 2017-18

- Improved the EEO Office's presence with on-site notices and expanded intranet pages.
- Updated Complaint and Reasonable Accommodation forms to meet current program needs and keep compliance with departmental and state requirements.
- Added communication options to meet section 1557 of the Affordable Care Act to provide consumers access to a civil rights coordinator. A separate phone line and email address were added to contact the civil rights coordinator, and language was updated on the website and in consumer notices to reflect these changes.
- Provided consultation to employees, managers and consumers who raised questions about accessibility and discrimination. Investigated complaints and presented findings for departmental action.
- Responded to over 300 referrals or requests for reasonable accommodation, collaborating with other units to ensure thorough and timely assistance.

- Provided department-wide training tailored to the roles and responsibilities of rank and file employees, supervisors and managers regarding EEO and reasonable accommodation.
- Coordinated the delivery of the mandated sexual harassment prevention training to Covered California's supervisors and managers to meet government code requirements.
- Introduced updated upward-mobility application procedures in accordance with California Department of Human Resources guidelines.
- Completed the annual Workforce Analysis to ensure the department is meeting expectations in the recruitment and retention of a diverse workforce.
- Assisted the Disability Advisory Committee in an advisory capacity. Provided technical assistance to improve its presence and record-keeping on the intranet.

Office of Legal Affairs

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	25	25	25
Personal Services	2,117,548	2,848,789	3,265,196
Operating Expenses	1,106,361	1,320,500	1,320,500
Total Expenses	\$3,223,909	\$4,169,289	\$4,585,696
Information Technology Support	-	-	261,358
ProRata / Sup. Pension Pay./ Other	253,539	308,504	299,091
Total Operating Costs	\$3,477,448	\$4,477,794	\$5,146,145

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes an exempt position for the Director of Office of Legal Affairs; authority per code 100503(m) at a monthly salary of \$12,784.

This budget includes one new Career Executive Assignment, created using existing position authority to provide broad oversight and management over the day-to-day operations of the division, as well as the implementation activities of special projects and initiatives.

This budget includes:

- \$817,500 for various other services, including legal advocacy services and law library subscriptions.
- \$365,00 for litigation support.
- \$85,000 for background and fingerprinting services.
- \$53,000 for other operational expenses, which include general training, travel and office supplies.

Division Description

The Office of Legal Affairs provides legal services to all Covered California staff by providing preventive legal advice and consultation to ensure compliance with laws and to mitigate legal liability. Office of Legal Affairs interfaces with the regulatory agencies and provides legal advice on a variety of matters pertaining to Covered California and its programs, contracts and operations. Office of Legal Affairs ensures that all legal agreements are fulfilled, and that Covered California operates within its legal authority. Office of Legal Affairs provides guidance on any statutes or regulations pertaining to Covered California.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Promulgates regulations with the Office of Administrative Law that incorporate Covered California's policies and procedures.
- Maintains the Covered California Privacy Office, which oversees the protection of consumers' personal information.
- Coordinates with the California attorney general on all litigation matters concerning Covered California.
- Responds to Public Records Act requests.
- Provides technical assistance on state and federal legislative proposals.
- Analyzes and prepares comments on federal regulations and requests for information.
- Provides eligibility and enrollment appeals support, including representing Covered California at second-level eligibility and enrollment appeals in front of the federal Health and Human Services Agency.
- Provides general legal support to divisions.
- Conducts preventive legal workshops designed to minimize litigation and legal liability by educating Covered California staff about the law (and changes in the law) and the legal implications of activities.
- Develops systems to monitor the volume and timeliness of legal services in the following areas: human resources, privacy, Public Records Act requests and background checks.

Key Objectives for FY 2018-19

- Finished the permanent rule-making process for eligibility and enrollment regulations for the individual exchange and Covered California for Small Business to ensure the public is aware of the rules and requirements to participate in Covered California.
- In coordination with the Information Technology Division, successfully transitioned Covered California Customer Relationship Management software to a new vendor.
- Revised the Form 700 filing process by implementing a streamlined workflow between the Human Resources Branch, the Business Services Branch and the Office of Legal Affairs. This ensures that Covered California maintains trust among consumers and stakeholders.

Key Accomplishments for FY 2017-18

- Successfully transitioned the contract for the Health Consumer Alliance to the Office of Legal Affairs while continuing to assist consumers with complicated issues.
- Began the permanent rule-making process for the eligibility and enrollment regulations for the individual exchange and Covered California for Small Business.
- In coordination with the Plan Management Division, drafted and implemented a solution regarding the loss of cost-sharing reduction payments.
- Successfully transitioned the review of proposed decisions on eligibility and enrollment appeals from the Service Center to ensure a more streamlined appeals process in compliance with state and federal law. This transition also includes the second-level appeals process with the U.S. Department of Health and Human Services.

External Affairs Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	8	8	9
Personal Services	725,434	840,046	1,176,227
Operating Expenses	47,643	127,000	115,500
Total Expenses	\$773,076	\$967,046	\$1,291,727
Information Technology Support	-	-	94,089
ProRata / Sup. Pension Pay./ Other	81,132	98,721	107,673
Total Operating Costs	\$854,209	\$1,065,768	\$1,493,489

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes an exempt position for the Director of External Affairs; authority per code 100503(m) at a monthly salary of \$15,354.

This budget includes one new Career Executive Assignment to develop and execute effective external engagement activities for government officials and stakeholders and serve as Covered California’s Tribal liaison.

This budget includes:

- \$56,000 for other operational expenses, which include general training, travel and office supplies.
- \$30,000 for specialized training.
- \$29,500 for tribal consultation activities.

Division Description

External Affairs serves as Covered California’s government and stakeholder relations liaison.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

External Affairs helps promote Covered California’s organizational excellence, provide outreach and education and inform national and state health-policy discussions through a variety of ways:

- Provides strategic representation to federal, state and local elected and administration officials.
- Proactively develops and maintains stakeholder relations to support and advance Covered California’s mission and goals.

- Tracks state and federal legislation and helps develop technical assistance when needed.
- Provides constituent correspondence and case-escalation resolutions for cases brought forward by legislative offices, stakeholders and Covered California leadership and staff.
- Develops and implements governmental and stakeholder outreach and engagement strategies.
- Engages in and provides support for special projects and matters that involve multiple divisions within the organization.
- Serves as Covered California's liaison to California's tribal governments.

Key Objectives for FY 2018-19

- Coordinated and assisted with internal and external activities related to Covered California's development and release of the legislatively mandated AB 1810 Affordability Report, including briefings to members and staff of the Legislature and administration staff. Also assisted with Covered California's response to technical-assistance requests related to recent gubernatorial and legislative proposals to address affordability in the individual market.
- Coordinated Covered California's participation in five legislative hearings spanning issues of health care affordability, health care quality and marketing and outreach. Coordinated Covered California's participation in a Congressional hearing pending federal legislation related to the Affordable Care Act.
- Planned and executed in-person federal engagement through meetings between Covered California's executive director, as well as directors of the Massachusetts Health Connector and the Washington Health Benefit Exchange with various congressional members, staff and other federal government officials.
- Led and supported engagement efforts with new appointees of Governor Newsom's administration.
- Tracked and monitored legislation with potential impact on Covered California and consumers in the individual and small-group market, including development of technical assistance to Congress and the California Legislature as needed.
- Assisted in the resolution of 304 escalated consumer cases between April 2018 and March 2019 that spanned a number of areas, including enrollment issues and payment inquiries.
- Engaged elected officials throughout California during the sixth open enrollment period with the goal of promoting enrollment into health coverage. Participated in

the “In an Instant” bus tour, providing support to elected officials and staff attending the events.

Key Accomplishments for FY 2017-18

- Monitored and analyzed legislation with a potential impact on Covered California. Provided and facilitated subject-matter expertise to Congress and the California Legislature as needed. Facilitated internal workgroups to analyze and provide technical assistance on legislation related to federal and state health exchanges.
- Assisted in the resolution of 453 escalated consumer cases, between July 2017 and June 2018, spanning a variety of areas, including Form 1095-A disputes, enrollment issues and payment inquiries.
- Provided updates and information routinely to elected officials and staff, including presentations regarding Covered California, updates on new developments and responses to inquiries from elected officials as appropriate, including email updates, briefings, conferences and presentations.
- Engaged elected officials throughout California during the fifth open enrollment period with the goal of promoting enrollment into health coverage. Participated in the “Covered in Art” bus tour, providing support to elected officials and staff attending the events. Provided outreach tool kits to legislative offices regarding the special enrollment period for 2018.
- Hosted the 2017 Tribal Consultation and revamped and facilitated the Tribal Advisory Workgroup.

Financial Management Division

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	58	58	58
Personal Services	5,597,602	5,876,460	6,709,556
Operating Expenses	3,628,204	3,878,000	3,840,006
Total Expenses	\$9,225,806	\$9,754,460	\$10,549,562
Information Technology Support	-	-	606,350
ProRata / Sup. Pension Pay./ Other	588,210	715,730	693,892
Total Operating Costs	\$9,814,015	\$10,470,190	\$11,849,805

Highlights for Approved FY 2019-20 Budget and Key Changes

In accordance with Government Code 100503, this budget includes an exempt position for the Director of Financial Management; authority per code 100503(m) at a monthly salary of \$16,437.

This budget includes:

- \$2,520,000 for accounting services.
- \$590,000 for consulting services to support the transition to FI\$Cal.
- \$258,000 for other operational expenses which includes general training, travel and office supplies.
- \$207,006 for analytics and reporting.
- \$134,000 for administrative overhead.
- \$115,000 for student assistants.
- \$16,000 for mailing and courier services.

Division Description

The Financial Management Division (FMD) plans, implements and guides all Covered California financial activities, including finance, accounting, forecasting, budgeting and governmental compliance. FMD coordinates and prepares Covered California's annual financial plan. The plan is developed to ensure divisions have sufficient resources to perform program operations to fulfill Covered California's mission. The financial plan is administered consistent with pertinent laws, policies and guidelines to safeguard Covered California's assets.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Supports a culture of continuous improvement for budget, forecasting and accounting practices, policies, procedures and systems to better support division operations.
- Pursues department-wide efforts to evaluate, streamline and prioritize division functions to identify efficiencies and improve customer service to maximize enrollment and retention.
- Performs financial planning activities, including economic analysis, forecasting and dashboard reporting of revenues and expenditures.
- Prepares Covered California’s Annual Report (formerly the Budget Book), which incorporates the annual report to the governor and Legislature.
- Provides support to promulgate Covered California’s permanent regulations in accordance with the Administrative Procedures Act by developing regulatory economic and fiscal-impact analyses.
- Processes general ledger and accounts payable transactions. Pays vendor invoices and employee travel expense claims. Receives, prepares and distributes payroll warrants.
- Performs accounts receivables and reconciliations for Covered California for Small Business (CCSB), which includes payments to carriers, general agents and agents for CCSB.
- Prepares budgetary and legislative annual financial statements in compliance with generally accepted accounting principles (GAAP).

Key Objectives for FY 2018-19

- Published Covered California’s FY 2018-19 Budget Book, which includes a multi-year financial summary of all revenues, expenditures and staffing used by each of Covered California’s divisions.
- In collaboration with the Business Services Branch, went “live” with the FISCAL system in July 2018. Over the course of the fiscal year, FMD worked with various state agencies and contractors to manage “post-go-live” activities while identifying and anticipating issues to mitigate risk and provide training and assistance with implementation.
- Completed FY 2017-18 audited financial statements and submitted them to CMS. These required statements offer short-term and long-term financial information about Covered California. The statement of net position provides information about the nature and amounts of investments in resources (assets) and obligations (liabilities) at the close of the fiscal year. The financial statements are

prepared on the accrual basis in accordance with U.S. Generally Accepted Accounting Principles.

- Ongoing collaboration with Covered California Small Business and Pinnacle for invoice level reconciliation and audits on invoices generated since the inception of CCSB.
- Following the establishment of the capital projects reserve in the FY 2018-19 budget, FMD created procedures to identify expenditures that are facility related.
- Initiated implementation of the California Automated Travel Expense Reimbursement System, which provides a comprehensive statewide solution for effectively managing travel claim processing. Covered California will be able to achieve efficiency through automation and will reduce the time required to process travel advance and expense-reimbursement payments.

Key Accomplishments for FY 2017-18

- Published Covered California's FY 2017-18 Budget Book, which focused on the implementation and performance of Covered California's functions.
- Completed FY 2015-16 and FY 2016-17 financial statements and Single Audit Report required by Office of Management and Budget Uniform Guidance.
- Began implementation of the Financial Information System for California (FI\$Cal), which is California's statewide accounting, budget, cash management and procurement IT system. A statewide integrated financial system streamlines and automates manual processes and systems, in turn reducing the time and workload associated with accounting, asset management, budgeting, cash management, procurement and vendor-management business practices.
- Implemented an end-to-end reconciliation of CCSB carrier, general agent and agent reports using FMD's Structured Query Language database. This reconciliation allows FMD to validate and analyze information among various reports for Covered California for Small Business employer groups and their consumers.
- Continued employee development for FMD staff, supervisors and managers in the form of instructor-led team-building sessions such as LEAN White Belt training and DiSC training.
- Implemented operational improvements, which include the launch of a GAAP Unit to support the need for GAAP-compliant financial statements.

Business Services Branch

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	36	38	39
Personal Services	3,132,802	3,439,082	4,104,724
Operating Expenses	5,835,478	9,358,825	9,799,360
Total Expenses	\$8,968,279	\$12,797,907	\$13,904,084
Information Technology Support	-	-	407,718
ProRata / Sup. Pension Pay./ Other	365,096	468,927	466,582
Total Operating Costs	\$9,333,375	\$13,266,834	\$14,778,384

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes one new Associate Governmental Program Analyst position for real estate and space planning efforts in addition to the following:

- \$7,297,248 for leases.
- \$991,384 for facility services.
- \$628,472 for other operational expenses, which include funding to replace aging copy machines, general training, travel and office supplies.
- \$471,506 for building security.
- \$135,000 for health, safety and wellness.
- \$125,000 for project management.
- \$125,000 for student assistants.
- \$22,250 for operational maintenance.
- \$3,500 for mailing and courier services.

Division Description

The Business Services Branch is responsible for providing guidance and consultation on contract and purchasing services; health, safety and wellness services; providing central support functions for administrative programs enterprise-wide; and managing physical resources through facilities operations.

Supporting Covered California's Goals, Strategic Pillars and Initiatives

- Advances Covered California's mission by automating and streamlining business services-related functions to improve operational efficiency and effectiveness.
- Provides administrative processes and resources to ensure all procurement and contracting activities for Covered California are effective and responsible.

- Administers health, safety and wellness programs for Covered California employees, including injury and illness prevention, workplace violence and bullying prevention, ergonomics, business continuity planning and Healthier U.
- Administers all enterprise-wide administrative services activities, including the Covered California administrative manual, records management, forms management, recycling, asset management and space planning.
- Ensures all Covered California facilities are well maintained and secure and that Covered California has the appropriate physical workspace to deliver on its mission.
- Improves the quality of services for all business-services requests.
- Successfully achieves all business-services activities and implements all legislatively mandated policies and procedures.

Key Objectives for FY 2018-19

- In collaboration with the Financial Management Division, the Business Services Branch successfully transitioned to FI\$Cal in July 2018. The Business Services Branch is using the new system for all procurement- and contract-related transactions. This transition involved designing and planning, change management and communication plans for Covered California to ensure a successful and quick transition.
- Continued providing contracting services for Certified Insurance Agents; Certified Enrollment Entities, navigators, health plan issuers, dental plan issuers and third-party administrators, personal services, operational services and non-monetary agreements.
- Processed purchase orders at a level consistent with FY 2017-18 to support divisions' needs in carrying out their objectives.
- With the board's approval, published a revised Covered California Procurement and Contracting Manual, including a chapter on the new process for leasing of real property.
- In collaboration with the Office of Legal Affairs and the Human Resources Branch, revised and implemented an improved Conflict of Interest Statement of Economic Interests (FPPC Form 700) electronic filing and tracking process.
- In collaboration with Covered California University, developed and implemented the first two modules of an online Covered California contracts training series.
- Acquired the Response Road office to assist with space needs at the Exposition Boulevard location. Completed tenant improvements and established a new

lease for this much needed space. Additionally, restacked the Exposition Boulevard office to accommodate space needs.

- Acquired real estate consulting services to assist with establishing a Real Estate Unit in response to ending leases, requiring specialized services for space planning and lease negotiation.
- Continued to implement wellness initiatives, including conducting a second Health Enhancement Research Organization scorecard evaluation that revealed significant improvements related to wellness across the organization. Covered California ranked first in the Healthier U Connections total employee registration, and our program has been referred to as the “gold standard” by CalHR’s wellness coordinator.
- Conducted four tests, trainings and exercises, one of which being a full-scale exercise, for Covered California’s business-continuity plan. These exercises will further mature the plan and our ability to respond to emergencies. The Emergency Operations Center was activated three times this fiscal year to respond to building emergencies.

Key Accomplishments for FY 2017-18

- Provided contracting services for more than 17,000 Certified Insurance Agents, Certified Enrollment Entities, navigators, health plan issuers, dental plan issuers and third-party administrators, personal services, operational services and non-monetary agreements.
- Processed more than 800 purchase orders to support divisions in carrying out their obligations.
- Implemented wellness initiatives, including the Covered California softball team, the Healthier U advisory committee, Healthier U fitness challenges and events, wellness stations, a bottle-filling station at the Exposition Boulevard location and ice machine installation at two Service Center locations.
- Established the Special Projects Unit within the branch to provide a hands-on approach to providing Business Services programs with the tools, resources and guidance required to manage complex projects and new and updated programs across the branch.
- Implemented the Emergency Operations Center in response to a water intrusion incident that occurred at the Exposition office in February of 2018 that displaced approximately 40 staff. This incident further developed the Business Continuity Program for Covered California, ensuring that the department can still provide essential services during a natural disaster.

- Completed tenant improvements at the Rancho Cordova Service Center to install additional external security cameras, door-assist operators compliant with the Americans With Disabilities Act (ADA) and other building improvements. These additions will provide additional security and easier accessibility for the facility, thus improving employee morale.

Human Resources Branch

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	52	51	52
Personal Services	5,332,524	5,230,664	4,864,969
Operating Expenses	661,522	959,376	3,420,776
Total Expenses	\$5,994,045	\$6,190,040	\$8,285,745
Information Technology Support	-	-	543,624
ProRata / Sup. Pension Pay./ Other	527,360	629,349	622,110
Total Operating Costs	\$6,521,406	\$6,819,389	\$9,451,479

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes:

- \$2,221,000 for infrastructure projects.
- \$345,000 for hiring activities.
- \$266,000 for insurance.
- \$180,000 for other operational expenses, which include general training, travel and office supplies.
- \$150,000 for audit and hearing services.
- \$145,000 for employee services.
- \$85,000 for litigation support.
- \$28,776 for human resources-specific software licenses.

Division Description

The Human Resources Branch is responsible for all personnel functions. The branch provides overall policy direction on human resource management and administrative support functions related to the management of employees.

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Provides all recruitment support to the department, including consulting with hiring managers and personnel liaisons, advertising vacancies, finding talent, reviewing applications, processing requests for personnel actions, verifying minimum qualifications and approving hires in accordance with delegated authority.
- Develops personnel procedures, coordinates pre-employment services, issues personnel bulletins and generates and distributes personnel reports.
- Oversees timekeeping and reporting. Processes all personnel payroll and benefits.

- Consults on all labor relations activities with employee organizations and representatives, job stewards, third party reviewers and control agencies. Serves as subject matter experts for labor relations activities to provide guidance to executive and program management and supervisory staff on contract interpretation, grievance and complaint response, working conditions and the meet and confer process.
- Administers workers' compensation, Return-to-Work Supplement Program, Family and Medical Leave Act and California Family Rights Act claims and requests in accordance with applicable laws and internal policies.
- Monitors human resources policy changes on state and federal levels, including union contracts and governor mandates. Updates Covered California policies or procedures and provides training if needed. Notifies employees and management of changes as needed.
- Provides advice and consultation to managers and supervisors regarding employee performance management, progressive discipline processes, adverse actions and non-punitive actions. Reviews appropriate resolutions and makes recommendations on improving employee performance.
- Automates and streamlines human resources services provided to internal and external customers while continuing to pursue technological advances that improve operating efficiencies.
- Collaborates with each division to continuously improve organizational culture and maintain a workplace that fosters a healthy, positive and respectful work environment.
- Strives to foster excellence by empowering professional development and creating innovation solutions using services, tools and technology that bridge challenges and business needs to deliver a diversified, high-performing workforce.

Key Objectives for FY 2018-19

- Established the Executive Recruitment Unit for hard to recruit Senior Leadership classifications, implementing online job advertising and strategic recruitment efforts to attract qualified talent and ensure adequate candidate pools.
- Successfully underwent two statewide classification consolidation projects for the information technology series and research data series.
- Participated in the IT Apprenticeship Program Cohort (Client Services).
- Grew the talent pipeline of over 2,900 candidates, 228 of whom are bilingual in one of our seven core languages.

- Doubled our brand engagement rate on LinkedIn since its implementation in June 2017.
- Launched a Facebook Covered California Careers page and organically grew our following to 700 followers.
- Launched new recruitment marketing material, including a recruitment brochure to market Covered California as an employer of choice.
- Created a dedicated unit for talent acquisition strategies, adding two additional recruiters whose mission is to ensure a diverse and qualified workforce while maintaining low vacancy rates within the organization. Activities include recruitment consultations, external advertisements, sourcing strategies, pipeline management, career fairs and networking event presence, marketing, social media management, career counseling and other strategies.
- Successfully provided five performances management related trainings to supervisor's department-wide to provide information and tools for employee performance.

Key Accomplishments for FY 2017-18

- Launched the Recruitment Hub on the Covered California SharePoint site to provide a central location for hiring managers and employees to access recruitment materials, event calendars, event summaries and external job posting information.
- Executed new recruitment strategies, including successfully implementing the Covered California Careers Facebook page; participating in 30 recruitment events, creating a pipeline of over 1,000 job seekers; and redesigning the HBEX.coveredca.com careers page to provide a more robust place for job seekers to learn about Covered California career opportunities.
- Successfully implemented the Conflict of Interest Form 700 automated software system, streamlining the process and ensuring accurate records to track filings.
- Completed administrative procedures for the telework program and alternate workweek schedules.
- Implemented the Human Resources Weekly Announcement, released every Friday, making all employees aware of any employment opportunities with hyperlinks for quick access to the information.
- Collaborated with the Information Technology Division to launch an off-boarding SharePoint site, creating a centralized and cross-divisional resource for the separation process.

Covered California University

Division Budget – Multi-Year View

	FY 2017-18	FY 2018-19	FY 2019-20
	Actual Expenditures	Approved Budget	Approved Budget
Positions	31	31	31
Personal Services	2,916,019	2,989,335	3,187,370
Operating Expenses	351,950	554,500	668,750
Total Expenses	\$3,267,970	\$3,543,835	\$3,856,120
Information Technology Support	-	-	324,084
ProRata / Sup. Pension Pay./ Other	314,388	382,545	370,873
Total Operating Costs	\$3,582,358	\$3,926,381	\$4,551,077

Highlights for Approved FY 2019-20 Budget and Key Changes

This budget includes:

- \$488,750 for training services.
- \$80,000 for other operational expenses, which include general training, travel and office supplies.
- \$50,000 for software licenses.
- \$50,000 for student assistants.

Division Description

Covered California University (CCU) is the enterprise-wide training and knowledge management branch. CCU develops and delivers training to all internal staff and external service channel partners who help consumers with their health care needs. CCU administers the technology that supports information and training, including the CRM Knowledgebase and the Absorb Learning Management System (LMS).

Supporting Covered California’s Goals, Strategic Pillars and Initiatives

- Provides comprehensive new employee and refresher courses to Service Center representatives and vendors during open enrollment and for overflow support for the Agent Call Center.
- Provides training and support for key strategic activities, including the consumer experience initiative, special enrollment enhancements and all CalHEERS upgrades that affect Covered California.
- Supports multiple programs within Covered California to develop training courses that are mandatory and program specific to ensure employees are fully trained to support Covered California and its activities.
- Provides internal knowledge base for open enrollment to provide enhanced ad hoc consumer information to lower call volume, enhance the consumer journey and provide education during the enrollment process.

- Ensures compliance of all Covered California mandatory training and provides regularly scheduled management reports of compliance.
- Develops and applies content standardization and best practices to all courses and knowledge materials across the organization.
- Leverages existing and new technologies, and blended training delivery systems, to enhance all Covered California divisions and partners by providing opportunities for professional learning and growth.

Key Objectives for FY 2018-19

- Provided training, documentation and support for all Service Center representatives, vendors and external partners for two major enterprise initiatives: Salesforce CRM and CalHEERS Account Transfer upgrade.
- Streamlined the process for manual work documentation and restructured documents to better support the Service Center staff who use the documentation to ensure the health plans of 22,000 consumers were renewed properly.
- Created and implemented an enterprise-wide tuition reimbursement program.
- Created and implemented three courses for insurance providers that would like to be certified with the exchange and one course for those who assess applications to ensure guidelines are being followed.
- Continued to support the Service Center surge vendor, training more than 800 staff over a four-month period to support open enrollment.

Key Accomplishments for FY 2017-18

- Instituted a proactive, collaborative project plan for CalHEERS releases. The training and knowledge teams worked in tandem to ensure that Covered California was in front of the release and that training and knowledge were closely aligned.
- Supported certification and recertification training efforts for all sales channels, including course creation, distribution and Learning Management Support for more than 20,000 enrollers and agents.
- Implemented CCU's new University Article Management System, streamlining the approval process and providing enterprise-wide visibility into the publications.
- In collaboration with IT, designed and delivered training for Service Center staff on the new Calabrio and Finesse systems.
- Provided support to the Service Center's surge vendor, training approximately 800 staff over a three-month period prior to support open enrollment.

X. Budget and Planning Process

Covered California is required to prepare an annual report to the governor and the Legislature. This written report focuses on the implementation and performance of Covered California's functions during the preceding fiscal year, including, at a minimum, the way funds were expended and the progress toward, and the achievement of the requirements pursuant to Section 100503 et. seq., Title 22 of the California Government Code.

The annual Covered California budget and planning process is a comprehensive and analysis-based system used to determine the most cost-effective and efficient level of resources that the organization needs to carry out its legislatively mandated mission and goals. The process is based on established budget principles, processes and procedures to provide the highest levels of fiscal integrity, accountability, transparency and accuracy.

The budget process is facilitated by the Financial Management Division, working closely with the executive leadership and all program areas. In strict accordance with the financial guidelines set forth under Government Code section 100503, the Covered California board must:

- Assess a charge on health insurance companies that is reasonable and necessary to support the development, operations and prudent cash management of Covered California.
- Authorize expenditures, as necessary, from the California Health Trust Fund to pay program expenses to administer the exchange.
- Keep an accurate accounting of all activities, receipts and expenditures, and annually report that accounting to the Health and Human Services secretary.
- Commencing January 1, 2016, conduct an annual audit.
- Prepare an annual report for the governor and the Legislature on its implementation and performance during the preceding fiscal year. The report must include the manner in which funds were expended and the progress toward meeting the requirements of the Affordable Care Act.
- Maintain enrollment and expenditures to ensure that expenditures do not exceed the amount of revenue in the fund, and if sufficient revenue is not available to pay estimated expenditures, institute appropriate measures to ensure fiscal solvency.

Government Code section 100520 sets out the requirements for the establishment and utilization of the Health Trust Fund:

- The board must establish and maintain a prudent reserve in the fund.

- Effective January 1, 2016, if at the end of any fiscal year the fund has unencumbered funds in an amount that equals or is more than the board-approved operating budget of Covered California for the next fiscal year, the board is required to reduce the percent of premium rate during the following fiscal year in an amount that will reduce any surplus funds of Covered California to an amount that is equal to the agency's operating budget for the next fiscal year.

Additionally, pursuant to Government Code section 100521, the board must:

- Ensure that the establishment, operation and administrative functions of Covered California do not exceed the combination of available federal funds, private donations and other non-General Fund monies. No state General Fund money may be used for these purposes without a subsequent appropriation.
- Determine that sufficient financial resources exist or will exist in the fund. Such determination must be based on: (1) financial projections, which show that sufficient resources exist or will exist in the fund to implement Covered California activities; (2) a comparison of projected resources and projected costs; and (3) financial projections that demonstrate the sufficiency of resources for at least the first two years of operation.
- Provide notice to the Joint Legislative Budget Committee and the director of finance that sufficient financial resources exist in the fund to implement Covered California activities.
- If the board determines that the level of resources in the fund cannot support the operations of Covered California, provide a report to the Department of Finance and the Joint Legislative Budget Committee detailing the changes to the functions, contracts or staffing necessary to address the fiscal deficiency along with any contingency plan should it be impossible to operate Covered California without the use of General Fund monies.

With this budget, pursuant to Government Code section 100521, the board confirms that Covered California's operations are entirely financed and supported by the plan assessments and reserves generated by those assessments. In FY 2018-19, there were no cost shifts or cost increases in other publicly funded health programs administered by the state due to exchange policies or operations. The budget reflects no anticipated cost shifts or cost increases in programs in FY 2018-19.

Government Code 100503(m) requires the Board to set the salaries for the exempt positions described in paragraph (1) and subdivision (i) of Section 100500 in amounts that are reasonably necessary to attract and retain individuals of superior qualifications.

Appendix: Covered California's Fifth Open Enrollment Period⁴

Covered California saw strong enrollment during the open enrollment period for plan year 2019. Data from the U.S. Census Bureau showed California's uninsured rate dropped to 7.7 percent in 2018, which represents a nearly 60 percent drop since the Affordable Care Act was launched in 2014. Also, following the fifth open enrollment for plan year 2018, more than 3.5 million more Californians had obtained health insurance coverage since 2013, which means health care costs for those with employer-sponsored coverage have also been dramatically reduced.

Alongside these successes, the new federal administration brought some changes to the Affordable Care Act. These changes include the decision to discontinue funding a critical piece of financial assistance known as cost-sharing reductions, which reduce the price of accessing care for those with qualifying incomes (as opposed to premium assistance, which lowers monthly costs). The lack of funding for cost-sharing reductions caused Covered California's qualified health plan issuers to raise premiums by 12.4 percent. To insulate as many consumers as possible from higher costs, Covered California implemented a surcharge on premiums for Silver-tier products only. Because premium assistance is indexed to Silver rates, consumers received additional premium assistance to offset the rise in premiums.

The innovative Silver surcharge pricing method helped to ensure a strong open enrollment period, along with significant investments in education and outreach aimed at reassuring consumers that Covered California is here to stay and that federal decisions would not cause significant premium hikes for most consumers.

Covered California's fifth open enrollment period saw 423,484 plan selections, a 3 percent increase from the previous year, though renewals did drop slightly from 1.3 million to 1.2 million. Below are tables showing Covered California's enrollees after the fifth open enrollment period by demographic, subsidy eligibility and plan choice.

⁴ This section has been prepared pursuant to Section 100503 of the Government code reflecting a detailed summary of the results of the Open Enrollment for the 2018 coverage year

Table A
Enrollment Totals: Enrollment for 2018 Coverage Year
 (Age by Subsidy Eligibility)

Age Bracket	Subsidy Eligible		Unsubsidized		Total	
	Enrollees	Percentage	Enrollees	Percentage	Enrollees	Percentage
Age 17 or less	64,210	5.1%	29,450	17.8%	93,660	6.6%
Age 18 to 25	130,530	10.4%	11,120	6.7%	141,650	10.0%
Age 26 to 34	199,110	15.9%	35,810	21.7%	234,920	16.6%
Age 35 to 44	182,750	14.6%	30,840	18.7%	213,590	15.1%
Age 45 to 54	287,280	23.0%	29,130	17.6%	316,410	22.3%
Age 55 to 64	378,800	30.3%	28,280	17.1%	407,070	28.7%
Age 65+	8,690	0.7%	730	0.4%	9,420	0.7%
Grand Total	1,251,360	100.0%	165,340	100.0%	1,416,710	100.0%

For its fifth open enrollment, Covered California maintained its share of younger enrollees. Young adults aged 18 to 34 accounted for an estimated 37 percent of this year's new plan selections for the 2018 coverage year, which compares to 37 percent for 2017, 38 percent 2016, 34 percent for 2015 and 29 percent for 2014. As seen above in Table A, Covered California's total enrollment of individuals (including renewals) between ages 18 and 35 is approximately 26 percent, also consistent with previous years. Maintaining strong enrollment among younger populations generally improves the risk pool and helps reduce overall premium rates for all consumers.

Table B
Enrollment Totals by Metal Tier: Enrollment for 2018 Coverage Year
 (Metal Tier by Subsidy Eligibility)

Metal Tier	Subsidy Eligible		Unsubsidized		Total	
	Enrollees	Percentage	Enrollees	Percentage	Enrollees	Percentage
Minimum Coverage	5,050	0.4%	9,150	5.5%	14,200	1.0%
Bronze	334,300	26.7%	78,350	47.4%	412,650	29.1%
Silver	134,910	10.8%	36,020	21.8%	170,930	12.1%
Silver - Enhanced 73	110,870	8.9%	40	0.0%	110,920	7.8%
Silver - Enhanced 87	307,000	24.5%	80	0.0%	307,080	21.7%
Silver - Enhanced 94	203,550	16.3%	50	0.0%	203,610	14.4%
Gold	117,410	9.4%	28,650	17.3%	146,060	10.3%
Platinum	38,280	3.1%	12,990	7.9%	51,270	3.6%
Grand Total	1,251,360	100.0%	165,340	100.0%	1,416,710	100.0%

Just under 50 percent of subsidized consumers are enrolled in an Enhanced Silver plan, in which they receive financial help to lower out-of-pocket costs for medical services. These are referred to as cost-sharing reductions, which as of the 2018 plan year are no longer funded by the federal government but instead by a surcharge on all Silver plans that is then offset by increased premium tax credits. This surcharge is discussed in more detail in the next section.

Table C
Enrollment Totals by Income: Enrollment for 2018 Coverage Year
(FPL by Subsidy Eligibility)

Federal Poverty Level	Subsidy Eligible		Unsubsidized		Total	
	Enrollees	Percentage	Enrollees	Percentage	Enrollees	Percentage
138% FPL or less	26,420	2.1%	11,420	6.9%	37,830	2.7%
138% FPL to 150% FPL	212,330	17.0%	830	0.5%	213,160	15.0%
150% FPL to 200% FPL	408,240	32.6%	3,150	1.9%	411,390	29.0%
200% FPL to 250% FPL	232,070	18.5%	3,100	1.9%	235,170	16.6%
250% FPL to 400% FPL	351,070	28.1%	7,430	4.5%	358,510	25.3%
400% FPL or greater	420	0.0%	60,160	36.4%	60,580	4.3%
FPL Unavailable	18,070	1.4%	0	0.0%	18,070	1.3%
Unsubsidized Application	2,760	0.2%	79,250	47.9%	82,010	5.8%
Grand Total	1,251,360	100.0%	165,340	100.0%	1,416,710	100.0%

Approximately 68 percent of Covered California enrollees had incomes between 138 and 250 percent of the federal poverty level and received financial assistance that covered a significant portion of premium costs and, in some instances, out-of-pocket costs for medical services.

Table D
Enrollment Totals by Race/Ethnicity: Enrollment for 2018 Coverage Year
(Race/Ethnicity by Subsidy Eligibility)

Race / Ethnicity	Subsidy Eligible		Unsubsidized		Total	
	Enrollees	Percentage	Enrollees	Percentage	Enrollees	Percentage
American Indian/Alaska Native	3,010	0.3%	130	0.1%	3,130	0.3%
Asian	232,940	24.1%	24,250	19.0%	257,190	23.5%
Black or African American	21,620	2.2%	2,610	2.0%	24,220	2.2%
Latino	286,730	29.6%	20,140	15.8%	306,870	28.0%
Multiple Races	19,930	2.1%	5,050	4.0%	24,980	2.3%
Native Hawaiian or Pacific Islander	1,580	0.2%	170	0.1%	1,750	0.2%
Other	59,680	6.2%	6,680	5.2%	66,350	6.1%
White	341,650	35.3%	68,310	53.7%	409,950	37.5%
Grand Total	967,120	100.0%	127,320	100.0%	1,094,450	100.0%
<i>Non-respondent</i>	<i>285,370</i>	<i>22.80%</i>	<i>38,250</i>	<i>23.10%</i>	<i>323,620</i>	<i>22.80%</i>

Renewal Enrollment

Fiscal Year 2017-18 marked Covered California's fifth renewal period, allowing enrollees who had coverage in 2017 to continue their coverage in the 2018 plan year. The open-enrollment period offers an opportunity to both enroll new consumers and retain existing consumers. As with the previous year, consumers could choose to

automatically renew their current plan or actively change their plan for another that meets their needs.

Enrollees were notified by Covered California that they could shop for a new plan during open enrollment, and if their income or family size changed, re-determine their eligibility for federal financial assistance. Consumers could use the Shop and Compare Tool on CoveredCA.com to learn about their 2018 plan options and, if they chose to, change plans through their Covered California online account or with help from a certified enroller.

Covered California also provided information to all renewing consumers regarding the Silver surcharge and how they could avoid paying it if they were an unsubsidized consumer. Subsidized consumers received more premium tax credits that helped to offset the rise in Silver premiums due to the surcharge. Unsubsidized consumers, however, received no offsetting financial assistance. To protect those consumers, Covered California sent out targeted messaging informing them that they could move off the exchange and enroll in a special off-exchange plan not subject to the surcharge that Covered California required its health plan issuers to make available.

Enrollees were eligible for automatic renewal if they previously consented to having Covered California verify their tax filing information with the Internal Revenue Service. If enrollees filed their taxes and did not actively renew their coverage or change plans, they were re-enrolled into the same plan with the appropriate amount of federal premium tax credits. Consumers were also notified by their health plan about automatic renewal and sent billing statements with the updated 2018 rate for that plan.

An overwhelming majority of consumers — over 86 percent — who were enrolled in coverage during December 2017 renewed their coverage for the 2018 plan year and made their first payment for January 2018. Of those who renewed, about half were passively renewed, meaning they made no changes and remained in their same plan in 2018. Approximately 43 percent actively renewed by choosing a different health insurer for coverage in 2018.

Additionally, the special enrollment period allowed consumers to enroll into coverage outside of open enrollment if they have a qualifying life event such as losing their coverage, getting married, having a baby, or moving to a new region where their plan is no longer available. During the entire 2017 special enrollment period (April to December), plan selections averaged 32,098 per month.

Carriers, Rates and Benefit Design For 2018

Covered California works to ensure consumers benefit from a competitive marketplace. Consumers can compare plans with standard patient-centered benefit designs that are

structured to help them get the right care at the right time. Covered California actively negotiates and contracts with the qualified health plans offered through the exchange. All Covered California's health plans provide the same patient-centered benefit designs for each metal tier, thus requiring the plans to compete with one another based on premium, networks, quality and service to consumers.

Covered California health plans must meet high standards of quality and affordability as they compete in the marketplace and must commit to improve care delivery. The result is a strong foundation of consistent plan offerings for consumers. Competition among plans has also stimulated strategies for providing high-quality, affordable health care, promoting prevention and wellness and reducing health disparities.

Carriers

In August 2017, Covered California approved rates and contracts with 11 health insurance carriers for the 2018 plan year. As a result, 96 percent of consumers have the choice of two or more health plans and 82 percent of consumers are able choose from three or more health plans. Also, 88 percent of hospitals in California will be available through at least one Covered California health plan, and 59 percent will be available in two or more plans.

There are some coverage changes for the 2018 plan year:

- Anthem Blue Cross of California withdrew from 16 of California's 19 regions, where it served approximately 153,000 consumers; it remained in three regions (1,7 and 10), where it covers more than 108,000 consumers (41 percent of 2017 enrollment).
- Blue Shield of California expanded its HMO product to a larger part of Region 2 (Marin, Napa, Solano, Sonoma Counties) and Region 12 (Ventura, San Luis Obispo, Santa Barbara Counties) and expanded to cover Region 5 (Contra Costa County) and Region 6 (Alameda County) from partial to full coverage.
- Health Net offered a new PPO product in some ZIP codes in Region 3 (Sacramento, El Dorado, Yolo counties) and Region 17 (Riverside, San Bernardino counties) and the entirety of Regions 15 and 16 (Los Angeles County), Region 18 (Orange County) and Region 19 (San Diego County).
- Oscar Health Plan of California offered a new EPO product in some ZIP codes in Region 15 (Los Angeles County).

These changes to coverage options did cause more consumers to make new coverage selections for 2018. Covered California supported those consumers by proactively providing additional educational materials as well as launching a new

integrated provider directory on CoveredCA.com to make it easier for consumers to understand their provider options in 2018.

Rates

In August 2017, Covered California announced negotiated rates for the 2018 plan year. The statewide weighted average increase for the 2018 plan year was 12.5 percent. If consumers change to the lowest-priced plan at the same metal tier, the weighted average change would be limited to an average of just 3.3 percent. This remains a dramatic change from the trends that individuals faced in the years prior to the implementation of the Affordable Care Act when double-digit rate increases were commonplace. The four-year average rate increase between 2014, Covered California's first plan year, to the 2018 plan year was just 8.5 percent.

The reasons for the increase vary, but the biggest factor remains medical trend, the general change in the cost of medical services or products combined with how often those services and products are utilized. In addition to the uncertainty in the market, 2018 rates featured a one-time adjustment for the implementation of the Affordable Care Act's health insurance tax (HIT), which added 2.8 percent to the rate change. Without the addition of the HIT, Covered California's rate change would be less than 10 percent, which is another sign of Covered California's stability when one focuses on the elements the department can directly control.

Many consumers paid less than the initial rates suggested. It is important to note that the weighted average rate change assumes that all current Covered California consumers would renew their coverage in their current plan. We know that this is not the case and that many consumers paid less than initial rates suggest, for two reasons.

First, shopping matters, and consumers have the power to switch coverage based on which plan fits their needs and provides them the best value. If consumers shopped and switched to the lowest-priced plan in their same metal tier, they could have reduced their 2018 rate change to an average increase of less than 3.3 percent.

Consumers have shopped for the best value in previous years. An independent study by The Commonwealth Fund found Covered California's consumers regularly ended up paying much less than the average price of plans. The study looked at the policies Covered California consumers purchased between 2014 and 2016 and found the average price paid in each year has been between 11 and 15 percent less than the average price of the plans offered.

Among the study's key findings:

- The study found consumers in each metal tier paid 11.6 percent less than the average price offered in 2014, 13.2 percent less in 2015 and 15.2 percent less in 2016.
- When measured as an average purchase price, consumers saw a premium increase of 2 percent over the 2014-15 period, and 3 percent over the 2015-16 period.
- Consumers responded to rate changes by shifting to lower-cost plans. In 2016, 62 percent of new enrollees and 56 percent of renewing enrollees chose the lowest or second-lowest-priced plans available.
- The findings suggest Covered California is helping to moderate cost growth. The researchers said, "Covered California demonstrates — straight out of Economics 101 — that if consumers have easy to understand, transparent information without being overwhelmed with too many choices, they will buy lower-premium products available in their tier." In fact, Covered California's research shows that consumers paid less than the average rate increase. In 2015, the effective rate increase was 3.9 percent; in 2016, the effective rate was 3.6 percent and in 2017, the effective rate was 11.5 percent.

Second, subsidies rise when premiums increase, providing consumers with more financial help to purchase their health coverage. Close to 90 percent of Covered California consumers receive financial help in the form of a tax credit that lowers their monthly premium and pays on average 5 percent of the monthly premium on their household policy. When premiums rise, that financial help will increase, helping consumers offset any rate changes.

The U.S. Department of Health and Human Services studied consumers who renewed their coverage in the federal marketplace in 2016 to find their actual rate change (<https://aspe.hhs.gov/system/files/pdf/198636/MarketplaceRate.pdf>). The study found that consumers who shopped around sharply reduced their premium changes. The result was that subsidized consumers saw their average premium rise only \$4 per month and the "effective rate change" amounted to an increase of 4 percent.

As important as the average overall increase — which again assumes that consumers all stay with their existing benefit design and insurance company — is the increase of the lowest-priced Bronze and Silver plans. These two tiers have more than 90 percent of Covered California's enrollment, and their respective average rate increases are 11.8 percent and 9.2 percent. These rate changes indicate that consumers who are willing to shop and change health insurance companies can experience an even smaller increase in their premiums.

2018 Rates Reflect That Covered California Is Working to Protect Consumers from Federal Uncertainty

The national debate over the future of health care and the lack of clarity surrounding how the federal government would fund the cost-sharing reduction subsidy program that benefits more than 650,000 Californians made it difficult for health insurance companies to put forward their best possible rates for consumers.

The Affordable Care Act requires carriers to offer additional benefits to low-income consumers — such as lower copays and deductibles when they access care — in the form of cost-sharing reductions. Consumers who have a household income between 138 and 250 percent of the federal poverty level are eligible to enroll in a Silver plan with cost-sharing reductions.

Cost-sharing reductions allow individuals making less than \$30,000 a year and families of four earning approximately \$60,000 a year to pay less for services such as copays and deductibles. In some cases, deductibles can be as low as \$75 for an individual (see Table E: 2018 Patient-Centered Benefit Designs by Income) and the copay for an office visit only \$5.

More than 48 percent of Covered California's 1.4 million consumers benefit from these cost-sharing reductions, which are a critical ingredient in improving the overall health of the entire risk pool. This in turn lowers premiums for everyone in the individual health insurance market.

Table E
2018 Patient-Centered Benefit Designs by Income

MEDICAL COST SHARES			
Coverage Category	Enhanced Silver 94	Enhanced Silver 87	Enhanced Silver 73
Eligibility Based on Income and Premium Assistance	Covers 94% average annual cost	Covers 87% average annual cost	Covers 73% average annual cost
Single Income Ranges	up to \$18,090 (≤150% FPL)	\$18,091 to \$24,120 (>150% to ≤200% FPL)	\$24,121 to \$30,150 (>200% to ≤250% FPL)
Annual Wellness Exam	\$0	\$0	\$0
Primary Care Visit	\$5	\$10	\$30
Specialty Care Visit	\$8	\$25	\$75
Urgent Care Visit	\$5	\$10	\$30
Emergency Room Facility	\$50	\$100	\$350
Laboratory Tests	\$8	\$15	\$35
X-Ray and Diagnostics	\$8	\$25	\$75
Imaging	\$50	\$100	\$300
Medical Deductible	Individual: \$75 Family: \$150	Individual: \$650 Family: \$1,300	Individual: \$2,200 Family: \$4,400
Pharmacy Deductible	—	Individual: \$50 Family: \$100	Individual: \$130 Family: \$260
Annual Out-of-Pocket Maximum	Individual: \$1,000 Family: \$2,000	Individual: \$2,450 Family: \$4,900	Individual: \$5,850 Family: \$11,700

Benefits shown in blue are not subject to any deductible.

DRUG COST SHARES: 30-DAY SUPPLY			
Generic Drugs (Tier 1)	\$3 or less	\$5 or less	\$15 after drug deductible
Preferred Drugs (Tier 2)	\$10 or less	\$20 after drug deductible	\$50 after drug deductible
Non-preferred Drugs (Tier 3)	\$15 or less	\$35 after drug deductible	\$75 after drug deductible
Specialty Drugs (Tier 4)	10%, up to \$150 per script	15% up to \$150 after drug deductible	20%, up to \$250 after drug deductible

Benefits shown in blue are not subject to any deductible.

When Covered California released its 2018 rates in August of 2017, the federal government had only made month-to-month commitments to make the payments to health plans for these required subsidies. The federal government ended these payments altogether starting in plan year 2018. Covered California has taken some steps in an effort to stabilize the market due to this uncertainty:

- Covered California’s Board adopted a policy aimed at reassuring our health insurance companies, and most importantly, protecting consumers. In the absence of a clear and reliable policy from the federal government that it will provide cost-sharing reduction funding through 2018, all health insurance companies in Covered California will add a surcharge of the amount needed to cover the costs of the cost-sharing reduction subsidy program to their on-exchange Silver-tier products. In addition, Covered California directed the health insurance companies to offer a virtually identical Silver product off the exchange that does not include the surcharge. These policies have been critical to giving health plans the certainty they needed to participate in California’s individual market in 2018. They also protect consumers by applying the surcharge only to Silver-tier plans, where consumers receive increased federal subsidies. Consumers enrolled in Bronze, Gold and Platinum plans will not be directly affected.
- While subsidized consumers at the Silver tier saw an increase in the gross cost of their premiums, they also saw an increase in the amount of financial assistance they receive in the form of a larger Advanced Premium Tax Credit (APTC). The increased tax credit will offset the cost-sharing reduction surcharge for most Silver-tier consumers and increase the amount of APTC that can be applied to purchasing other tiers for consumers selecting Bronze, Gold and Platinum plans.
- Covered California will conduct extensive outreach with unsubsidized consumers, both those with a health plan through Covered California and those who enroll directly through a health insurance company off the exchange. Covered California looks forward to working with our contracted health plans, insurance agents and other enrollers to make sure consumers understand that they do not need to pay the cost-sharing reduction surcharge. For those enrolled through Covered California, their options include moving to a Bronze, Gold or Platinum product — without the CSR surcharge — or moving to the off-exchange Silver product that does not include a CSR surcharge.

Benefit Design

Unlike other state-based markets, Covered California leads the way by requiring all health plan issuers to sell products that adhere to a uniform, patient-centered benefit design. Uniform benefit designs allow consumers to shop across Covered California's different health insurance companies knowing that the covered benefits are the same no matter which company they choose. Consumers can make apples-to-apples comparisons among plans' copays, deductibles and other out-of-pocket costs.

The Affordable Care Act defines essential health benefits and establishes "tiers" of coverage with established actuarial values. Essential health benefits and tiers of coverage are the legal base upon which the patient-centered benefit design is built. But beyond that foundation, Covered California reassesses our patient-centered benefit design every year through a process that engages insurers, clinicians, hospital representatives and consumer advocates. These designs ensure that for most tiers, neither primary care nor specialty ambulatory care visits are subject to the deductible, and copays for primary care visits are lower than those for specialty or emergency department care. Covered California has intentionally reduced the number of essential services that are not subject to a deductible because high deductibles have been documented to be a barrier to care.⁵

All 11 health plan issuers offer identical patient-centered benefit design, maximizing their impact on consumers and providers' practices while minimizing the confusion for consumers and providers. These priorities align benefit design with the goal of supporting patients in getting the right care at the right time.

⁵ (<https://economics.stanford.edu/events/what-does-deductible-do-impact-cost-sharinghealth-care-prices-quantities-and-spending>)

**Table F
2018 Patient-Centered Benefit Designs by Income**

MEDICAL COST SHARES				
Coverage Category	Bronze	Silver	Gold	Platinum
	Covers 60% average annual cost	Covers 70% average annual cost	Covers 80% average annual cost	Covers 90% average annual cost
Annual Wellness Exam	\$0	\$0	\$0	\$0
Primary Care Visit	\$75	\$35	\$25	\$15
Specialty Care Visit	\$105	\$75	\$55	\$30
Urgent Care Visit	\$75	\$35	\$25	\$15
Emergency Room Facility	Full cost until out-of-pocket maximum is met	\$350	\$325	\$150
Laboratory Tests	\$40	\$35	\$35	\$15
X-Ray and Diagnostics	Full cost until out-of-pocket maximum is met	\$75	\$55	\$30
Medical Deductible	Individual: \$6,300 Family: \$12,600	Individual: \$2,500 Family: \$5,000	N/A	N/A
Pharmacy Deductible	Individual: \$500 Family: \$1,000	Individual: \$130 Family: \$260	N/A	N/A
Annual Out-of-Pocket Maximum	\$7,000 individual and \$14,000 family	\$7,000 individual and \$14,000 family	\$6,000 individual and \$12,000 family	\$3,350 individual and \$6,700 family

Benefits shown in blue are not subject to any deductible.

White corner = subject to a deductible after first three visits. Copay is for any combination of services (primary care, specialist, urgent care) for the first three visits. After three visits, they will be at full cost until the medical deductible is met.

DRUG COST SHARES: 30-DAY SUPPLY				
Generic Drugs (Tier 1)	Full cost up to \$500, after drug deductible is met	\$15 after drug deductible	\$15 or less	\$5 or less
Preferred Drugs (Tier 2)	Full cost up to \$500, after drug deductible is met	\$55 after drug deductible	\$55 or less	\$15 or less
Non-preferred Drugs (Tier 3)	Full cost up to \$500, after drug deductible is met	\$80 after drug deductible	\$75 or less	\$25 or less
Specialty Drugs (Tier 4)	Full cost up to \$500, after drug deductible is met	20% up to \$250 after drug deductible	20% up to \$250	10% up to \$250

Benefits shown in blue are not subject to any deductible.

Covered California’s advocacy in requiring a uniform patient-centered benefit design is not just on behalf of Covered California consumers. There were approximately 800,000 individuals who purchased coverage in the individual market outside of Covered California in 2017. Under the Affordable Care Act, and in accordance with state law, every plan offered through Covered California must be offered outside of the exchange. As a result, the clear majority of individuals purchasing coverage outside of the exchange purchase plans that offer the same benefit design and rate as those negotiated by, and offered through, Covered California.

In addition to patient-centered benefit designs, Covered California adopted significant changes to contracts with our health plan issuers starting in 2017 that advance ongoing efforts to improve the quality of care delivered to enrollees. The new contract provisions seek to address challenges in our current health care system and provide concrete recommendations for the future to address both quality and costs, such as strengthening value-based, patient-centered benefit designs to improve access to primary care.

Specifically, the contract adopted in 2017, effective from plan years 2017-2019, includes the following initiatives regarding access to primary care, provider networks, addressing health disparities and better consumer tools. Those initiatives were initially reported on in previous version of this report, and more details on implementation follow below.

Primary Care

As of 2017, Covered California and the qualified health plans successfully matched 99 percent of enrollees with a primary care physician or clinician (such as a nurse practitioner) as a first point of contact and advocate in all products. In this new initiative, Covered California and health plan communications have emphasized that for PPOs, the primary care physician will not serve as a gatekeeper, and that having a primary

care physician imposes no rule-based restrictions on accessing other services. Rather, the intent is to reclaim the supportive role of primary care physicians as the preferred initial point of entry into a complex care system.

Now that all enrollees are matched to primary care physicians, health plans are redesigning a payment system for primary care services that moves away from fee for service and toward models that include at least partial population-based payment and performance-based bonuses based on standard measures of quality, patient experience and financial accountability. Population-based payment supports new models of primary care such as the Patient-Centered Medical Home that includes alternatives to face-to-face visits, sharing care with nurses and pharmacists and emphasizing coordination with specialists and hospitals. For a full description of Covered California's work in primary care, see our Health Affairs Blog Post:

<http://healthaffairs.org/blog/2017/06/14/moving-the-needle-on-primary-care-coveredcalifornias-strategy-to-lower-costs-and-improve-quality/>

Provider Networks Based on Quality

As part of the 2017-19 contract, QHPs agreed to include quality as a priority in all provider and facility selection criteria while designing and composing Covered California networks. Currently, the most reliable and comprehensive measurement available for hospital safety includes rates of common avoidable hospital-acquired infections. In the past year, Covered California worked with stakeholders to establish baseline measurements for all contracted hospitals. In 2017, health plans implemented new payment strategies contingent on quality outcomes, including safety and patient satisfaction and readmissions. Health plans are working with hospitals to reduce the remarkable variation in performance (complication rates can range from zero to five times the expected rate) through collaborative efforts to improve quality. This is a big change from previous accountability for average performance across the provider network. Health plans are now working to minimize poor performance by the end of 2019 so that enrollees can count on safe care at every hospital across California.

There is similar variation for cesarean-section rates for low-risk pregnancies across hospitals in California. Working through Smart Care California (<http://www.iha.org/ourwork/insights/smart-care-california>), which is co-chaired by the three large California state purchasers (Department of Health Care Services, CalPERS, and Covered California), an honor roll was created to recognize hospitals that achieved the national target of a 23.9 percent cesarean-section rate for low-risk pregnancies. The hospitals on the honor roll were acknowledged at an inaugural press conference in October 2016 by Diana Dooley, then secretary for the California Health and Human Services Agency and chair of the Covered California Board of Directors. Smart Care

California also reviewed the evidence regarding payment strategies for maternity services that meet Covered California requirements that there be no incentive for cesarean-sections that are not medically necessary.

Health Disparities

As part of the 2017-19 contract, health plans are tracking health disparities among all their patients by racial or ethnic group. The goal is to identify and reduce disparities in health outcomes beginning with four major conditions: diabetes, hypertension, asthma and depression. In 2017, baseline performance data was submitted and targets for improvement are being negotiated.

Covered California's health insurance companies are leading the nation in their efforts to reach and serve the rich diversity of California's population. Four of Covered California's 11 insurers — Health Net, Kaiser Permanente, L.A. Care Health Plan and Molina Healthcare — have achieved top scores and recognition from the National Committee for Quality Assurance based on their commitment to the collection of race/ethnicity and language data, provision of language assistance, cultural responsiveness, quality improvement of culturally and linguistically appropriate services and reduction of health care disparities. Additionally, Covered California will hire a new health equity officer to support health plan efforts to reduce disparities by harnessing evidence-based strategies in public health literature.

Consumer Tools and Telehealth

As part of the 2017-19 contract, health plans are developing tools and capabilities that will enable consumers to know provider specific cost shares (based on contracted rates) and quality information for inpatient, outpatient and ambulatory services and prescription drugs. These tools will also allow consumers to see plan specific accumulations toward deductibles and out-of-pocket maximums.

In addition, Covered California plans are innovating around telehealth. Five plans currently offer video telehealth visits for primary care, mental health and substance abuse services, and others are working to bolster this capability. Though not a part of the 2017-19 contract, Covered California is working with health plans to understand best practices that align with delivering quality care to patients at the right time in this relatively new modality.

Continuous Improvement

In the years ahead, Covered California and QHPs will continue to raise the bar to ensure consumers are getting the right care at the right time. In this way, Covered

California will help make even greater strides toward the triple aim of health care reform: better health, better quality and lower costs.

Covered California is also ensuring continuous consumer focused improvement by rigorously screening every health insurance company that wishes to participate on the Exchange. The principles that Covered California used to guide the selection and oversight of health insurance companies for the 2017-2019 contract period include: Promoting affordability for consumers, both in terms of premium cost and at the point of receiving care.

- Ensuring access to quality care for consumers presenting with a range of health statuses and conditions.
- Facilitating consumers' informed choice of health insurance plans, doctors and hospitals.
- Promoting wellness and prevention.
- Reducing health disparities and fostering health equity.
- Working to reform the health care delivery system while being mindful of Covered California's impact on, and role in, the broader health care delivery system.
- Performing responsively and using resources efficiently in the most focused possible way.

Dental Coverage

All Covered California health insurance plans in the individual market offer embedded pediatric dental plans because it is an essential health benefit under the Affordable Care Act. Dental coverage for children is included in the price of all health plans purchased through Covered California, and adults have been able to buy standalone dental plans since 2016. Family dental HMO and PPO plans are available as an optional purchase for consumers who have a health plan through Covered California. In 2018 approximately 196,910 individuals enrolled in standalone dental plans.

The dental insurance companies offering plans through Covered California in 2018 were:

- Access Dental Plan
- Anthem Blue Cross
- California Dental Network
- Delta Dental of California
- Dental Health Services
- Liberty Dental
- Premier Access

Dental plans make dental benefits available to single adults, married adults, families and children. All dental plans sold through Covered California must adhere to patient-centered benefit designs and include comprehensive coverage and free preventive and diagnostic care, such as cleanings, X-rays and exams. Depending on where they live, adult consumers paid an average of \$22.00 per month in premiums, though plans are available for as little as \$7.72 per month.

There are no federal subsidies available to consumers for the purchase of family dental plans. Covered California receives revenue from the dental plans in a similar method used for health plans. For plan year 2018, each dental plan gave Covered California 4 percent of all gross premium dollars paid by each enrollee each month.

Vision Coverage

Similar to pediatric dental coverage, pediatric vision coverage is an essential health benefit under the Affordable Care Act. As such, vision benefits for children are embedded in all Covered California health insurance plans. However, vision care for adults is not considered an essential health benefit and is not a covered benefit in Covered California health plans.

To help consumers connect with and obtain coverage from quality vision plans, Covered California partnered with two vision benefit carriers, Vision Service Plan (VSP) and EyeMed Vision Care, to offer individual and family vision coverage to Covered California consumers. Interested consumers can enroll directly on the vision carrier's website and can call the vision carrier for enrollment assistance or use a Certified Insurance Agent to obtain coverage. Covered California provides a link to both vision carrier websites. The carrier websites provide consumers with information on vision coverage, coverage options and provider networks.

Visitors to CoveredCA.com can access VSP through a link that takes them to VSP's website. Once on the VSP website, consumers work directly with VSP to shop for vision benefits and see which coverage options are best for them. VSP currently offers Covered California consumers two plan options.

EyeMed Vision Care is the second pathway to vision coverage for Covered California consumers. EyeMed Vision Care currently offers consumers three plan options with different levels of coverage. Like VSP, Eyemed can also be accessed through a link on Covered California's website.

As part of their agreements with Covered California, both VSP and EyeMed Vision Care are required to conduct annual consumer surveys to ensure a positive consumer experience. In addition, they provide quarterly enrollment reports to Covered California based on those who have accessed their respective websites through CoveredCA.com.

VSP and EyeMed Vision Care pay Covered California a commission of 5 percent of the quarterly premiums they earn from each enrollee who signed up through the link on Covered California's website.



CoveredCA.com



August 13, 2019

Secretary Alex Azar
Department of Health and Human Services
Hubert H. Humphrey Building
200 Independence Avenue SW.
Washington, D.C. 20201

Re: Covered California comments on Nondiscrimination in Health and Health Education Program Activities; HHS-OCR-2019-0007 (RIN 0945-AA11)

Secretary Azar,

Covered California is submitting comments in response to proposed regulations that would revise the Department of Health and Human Services (HHS) prior interpretation of Section 1557 of the Patient Protection and Affordable Care Act. In their current form, the proposed rules would make abortion services potentially more difficult to obtain, and remove potentially life-saving protections for individuals based on their gender identity or sexual orientation. We encourage HHS to wait for the *Franciscan Alliance v. Burwell* lawsuit to work through the courts prior to issuing these regulations.

Removing the Definition of “Sex”

In 2016, HHS released the original Section 1557 regulations which extended various nondiscrimination protections to health coverage and care based on race, color, national origin, age, disability, and sex. Specifically, the regulation defined discrimination “on the basis of sex” to cover discrimination based on sex stereotyping, gender identity, and termination of pregnancy. The proposed regulation would eliminate these protections altogether. According to HHS, due to ongoing litigation, it is not proposing a definition of “sex” for the purposes of discrimination, but rather relying on a memorandum issued by the United States Department of Justice which states that “sex” is ordinarily defined to mean biologically male or female and that “Congress has confirmed this ordinary meaning by expressly prohibiting, in several other statutes, ‘gender identity’

discrimination, which Congress lists in addition to, rather than within, prohibitions on discrimination on the basis of 'sex' or 'gender'." ¹

Covered California is concerned that this proposed regulation would limit civil rights protections for lesbian, gay, bisexual, and transgender (LGBT) individuals by limiting the protections available to them under current federal law. This rule, should it be finalized, would allow individuals to be discriminated against based on their sexual orientation or gender identity. By proactively removing the protections for these individuals, health care providers may be legally allowed to refuse service to individuals who are transgender. This action is in conflict with the administration's stated desire in previously released executive orders² to improve patient access to affordable, quality healthcare. LGBT and other individuals, such as pregnant women³, may face inadequate, limited, and more expensive healthcare due to refusals to provide such individuals with the same quality of care provided to non-LGBT and non-pregnant women. In fact, such refusals to offer care, a result of the repeal of sex discrimination protections with this proposal, could be life-threatening to members of the LGBT community, and pregnant women and their unborn babies.

Under current regulations, an individual is protected from differential coverage or cost-sharing for services based on an individual's gender identity. Under this proposed regulation, HHS is eliminating this protection and would now allow a health plan or provider to deny coverage or impose greater cost-sharing on certain individuals.

Nondiscrimination in Health Coverage

In the 2016 final regulation, HHS introduced a general nondiscrimination requirement that prohibited covered entities from denying, cancelling, limiting, or refusing to issue or renew a health-related insurance plan or policy, denying or limiting coverage of a claim, imposing additional cost-sharing or other limitation or restrictions, on the basis of an enrollee's or prospective enrollee's race, color, nation origin, sex, age, or disability. Additionally, covered entities were prohibited from using marketing practices or benefit designs that discriminate on these bases.⁴ Now, HHS's proposed rule seeks to remove these federal protections by eliminating this section in its entirety under this proposed regulation. This would

¹ [Memorandum of the Attorney General](#) (October 4, 2017)

² Promoting Healthcare Choice and Competition Across the United States:

<https://www.govinfo.gov/content/pkg/FR-2017-10-17/pdf/2017-22677.pdf>

Minimizing the Economic Burden of the Patient Protection and Affordable Care Act Pending Repeal: <https://www.govinfo.gov/content/pkg/FR-2017-01-24/pdf/2017-01799.pdf>

³ By eliminating the current definition of sex-based discrimination which includes on the basis pregnancy, people in need of an abortion could be denied services based on a provider's religious beliefs.

⁴ § 92.207 (b)(1)-(5)

allow a covered entity to cover a certain procedure for men, but not for women⁵, as well as make HIV medication more difficult to obtain.⁶ Creating such barriers to medication is contrary to the administration's efforts to broaden access to care, as expressed in recent executive orders⁷, and ongoing efforts to make prescription medications more accessible and affordable.

In addition to proposing to eliminate basic, yet necessary, nondiscrimination protections, HHS is also proposing to eliminate all current Section 1557 nondiscrimination notice and grievance procedure requirements. Current regulations require covered entities that employ 15 or more persons to designate a responsible employee to coordinate the entity's compliance with the rule and adopt a grievance procedure. Covered entities that meet this requirement must provide notice of their nondiscrimination policies in significant communications (such as handbooks and outreach publications), physical locations where the entity interacts with the public, and on their website homepage. HHS is now stating that their reason for eliminating this regulation is the provisions are seen as "duplicative." The reason for the sudden reversal in policy is not clear from the regulations given that the 2016 regulations described ways in which duplicative processes could be reduced.⁸

Language Access

Citing the need to remove duplicative processes and procedures, HHS also proposes to narrow the current Section 1557 regulation on language access. Additionally, HHS justifies the narrowing of protections by stating that the 2016 regulation is now confusing and costly, not required by law, and inconsistent with other requirements. As proposed, patients with limited English proficiency may experience barriers in effectively communicating with health care providers, which is contrary to the administration's goals of better patient access to healthcare with broadened care options and transparency, as stated in previously released executive orders.⁹ Similar to HHS's proposal to eliminate protections for individuals based on their sexual orientation, this proposed regulation will put patients at risk as they may not properly understand information and services

⁵ 81 Federal Register 31375-31473 (May 18, 2016) provides the example of covering inpatient treatment for eating disorders for men but not for women.

⁶ 81 Federal Register 31375-31473 (May 18, 2016)

⁷ Promoting Healthcare Choice and Competition Across the United States:

<https://www.govinfo.gov/content/pkg/FR-2017-10-17/pdf/2017-22677.pdf>

Minimizing the Economic Burden of the Patient Protection and Affordable Care Act Pending Repeal: <https://www.govinfo.gov/content/pkg/FR-2017-01-24/pdf/2017-01799.pdf>

⁸ Section 504 of the Rehabilitation Act of 1973

⁹ Promoting Healthcare Choice and Competition Across the United States:

<https://www.govinfo.gov/content/pkg/FR-2017-10-17/pdf/2017-22677.pdf>

Minimizing the Economic Burden of the Patient Protection and Affordable Care Act Pending Repeal: <https://www.govinfo.gov/content/pkg/FR-2017-01-24/pdf/2017-01799.pdf>

Improving Price and Quality Transparency in American Healthcare To Put Patients First:

<https://www.govinfo.gov/content/pkg/FR-2019-06-27/pdf/2019-13945.pdf>

being provided by a health care provider, which could have costly and negative health consequences.

HHS articulates a stated goal of this proposed rule and elimination of various nondiscrimination protections is to save money.¹⁰ Current Section 1557 regulations are necessary and the importance of the protections provided under the current regulations outweigh the value of savings realized by removing such protections. HHS should maintain its commitment to vigorous enforcement of civil rights and nondiscrimination laws as directed by Congress.¹¹

The proposed regulation relies heavily on pending litigation to justify the removal of various nondiscrimination protections and argues that the Supreme Court is likely to address the issue of whether sex-based discrimination includes gender identity and sexual orientation in the next term.¹² Given this, HHS should leave in place current nondiscrimination protections provided under Section 1557 and allow the legal proceedings to play out. Too much progress has been made to end discrimination in health care and this proposed regulation would roll back much of that progress.

Thank you for your consideration of our comments. If you have any questions or would like more information, please feel free to contact me.

Sincerely,



Peter V. Lee
Executive Director

cc: Covered California Board of Directors

¹⁰ HHS estimates that the health care industry will save \$3.6 billion over the first 5 years of the regulation 84 Federal Register at 27849

¹¹ 84 Federal Register at 27874

¹² 84 Federal Register at 27855

Politics and Policy of Health Reform

Sources of Success in California's Individual Marketplace under the Affordable Care Act

Petra W. Rasmussen
Gerald F. Kominski

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Abstract When passed in 2010, the Affordable Care Act (ACA) became the greatest piece of health care reform in the United States since the creation of Medicare and Medicaid. In the 9 years since its passage, the law has ushered in a drastic decrease in the number of uninsured Americans and has encouraged delivery system innovation. However, the ACA has not been uniformly embraced, and states differ in their implementation of the law and in their individual health insurance marketplace's successfulness. Furthermore, under the Trump administration the law's future and the stability of the individual market have been uncertain. Throughout, however, California has been a leader. Today, the state's marketplace, known as Covered California, offers comprehensive, standardized health plans to over 1.3 million consumers. California's success with the ACA is largely attributable to its historical receptiveness to health reform; its early adoption of the law; its decision to have Covered California operate as an active purchaser, help shape the plans sold through the marketplace, and design a consumer-friendly enrollment experience; its engagement with stakeholders and community partners to encourage enrollment; and Covered California's commitment to continually innovate, improve, and anticipate the needs of the individual market as the law moves forward.

Keywords Affordable Care Act, health reform, health insurance marketplace, state policy making, Covered California

Within 6 months of President Obama signing the Affordable Care Act (ACA) into law, California became the first state to pass legislation establishing a health insurance exchange or marketplace. California's law, known as the 2010 California Patient Protection and Affordable Care Act, was signed by

Journal of Health Politics, Policy and Law, Vol. 44, No. 4, August 2019
DOI 10.1215/03616878-7530849 © 2019 by Petra W. Rasmussen and Gerald F. Kominski

Governor Schwarzenegger on September 30, 2010, and created the California Health Benefit Exchange, now known as Covered California.

Over the years, California had made significant progress laying the foundation for adopting the market-based reforms that were an integral feature of the ACA. These efforts included (a) the Knox-Keene Act of 1975, which established standards for managed care organizations; (b) the 1982 selective contracting law, which set the stage for health plans to compete and employ narrow networks; (c) a health insurance market with four large insurers having relatively equal market shares, allowing for competition in most areas of the state; (d) active purchaser organizations, including CalPERS and the Pacific Business Group on Health; and (e) the Health Insurance Act of 2003 (SB 2), which established an employer mandate to provide insurance or pay a tax (i.e., pay or play), but was repealed the following year when it failed as a proposition referendum. Finally, in 2007, then Governor Schwarzenegger proposed legislation to adopt a Massachusetts-like reform in California. All of these previous health reform efforts, even those that were unsuccessful, contributed to an environment receptive to market-oriented reforms that allowed California to act quickly to implement the ACA after it was enacted in 2010.

California under the ACA

While the ACA has been undeniably successful at reducing the uninsured rate in the United States, there has been variability among states in how smoothly the law has been implemented. California, the most populous state in the country, has been one of the law's greatest success stories. Since the passage of the ACA in 2010, the uninsured rate has been dropping in California. Although the main coverage provisions of the law did not go into effect until 2014, the state began implementation early and quickly began seeing coverage gains. The uninsured rate among 18- to 64-year-olds in the state has dropped from a high of 25.8% in 2010 to 9.7% in 2017 (fig. 1), with most of this reduction occurring since 2013 (from 23.7% to 9.7%) (Cohen and Martinez 2006, 2007, 2009, 2012, 2013, 2014, 2015; Cohen, Martinez, and Free 2008; Cohen, Martinez, and Ward 2010; Cohen, Ward, and Schiller 2011; Cohen, Zammitti, and Martinez 2016, 2017; Cohen, Zammitti, and Martinez 2018).

A significant portion of the ACA's success in California can be attributed to the Medicaid expansion. The ACA expanded eligibility for Medicaid for all legal residents up to 138% of poverty. Although the 2012 U.S. Supreme Court decision made the Medicaid expansion voluntary for states,

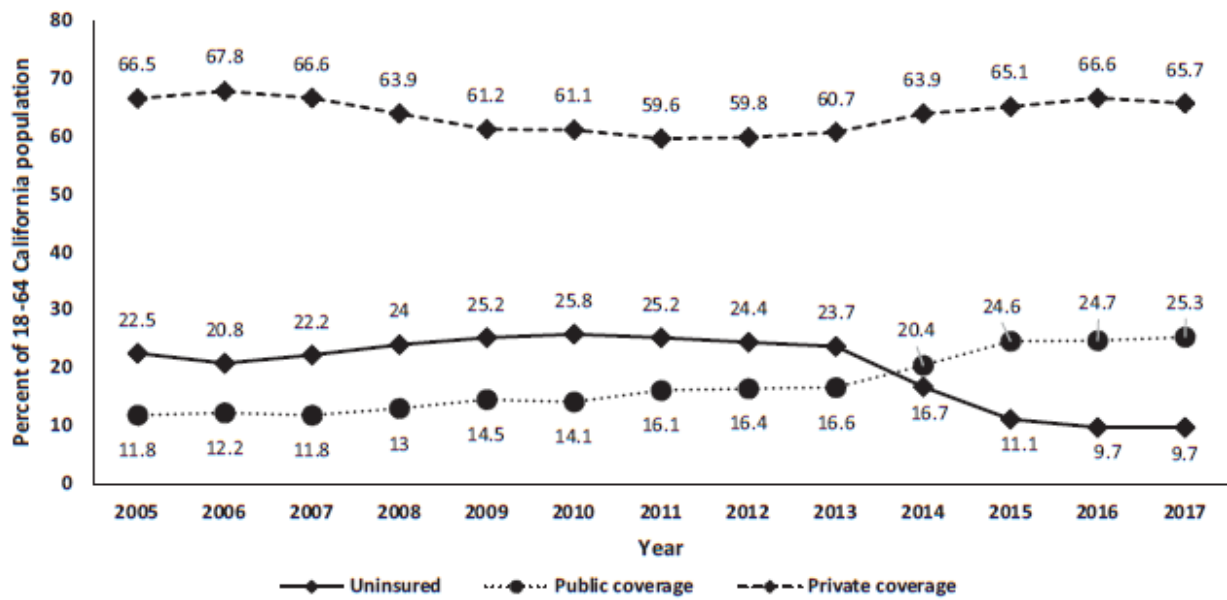


Figure 1 Coverage Trends in California Among Residents 18–64 Years of Age, 2005–17.

Sources: Cohen and Martinez 2006, 2007, 2009, 2012, 2013, 2014, 2015; Cohen, Martinez, and Free 2008; Cohen, Martinez, and Ward 2010; Cohen, Ward, and Schiller 2011; Cohen, Zammitti, and Martinez 2016, 2017; Cohen, Zammitti, and Martinez 2018.

Notes: The annual figures may sum to more than 100 as some individuals have both private and public coverage.

California was one of the 36 states that chose to expand the program. Medicaid, known as Medi-Cal in the state, has seen substantial enrollment gains, from an average enrollment of about 7.8 million individuals in January 2013 to over 13 million in August 2018 (California Department of Health Care Services 2016, 2018a).¹ California's growth in Medi-Cal enrollment of more than 60% is higher than the national average (about 30%) (CMS 2017a). Nearly 4 million of Medi-Cal's enrollees, about 28%, are from the expansion population, including about 656,000 individuals who were previously enrolled in the state's 1115 waiver Low Income Health Program (LIHP) and who transitioned directly into Medi-Cal on January 1, 2014, without having to submit an application (California Department of Health Care Services 2017).

California has also been successful at creating a stable and strong individual market. While the state largely avoided the problems associated with the flawed rollout of the HealthCare.gov website, there have been some bumps in the road. During the first open enrollment period, the Spanish-language version of the online application wasn't ready until the very end of 2013—more than 3 months into the open enrollment period—despite the fact that Latinos made up an estimated 46% of Californians eligible in 2013 for financial assistance through the state's health insurance marketplace, known as Covered California (Covered California 2013). After the first enrollment period there was also an issue with more than 148,000 enrollees needing to provide additional documentation to prove their citizenship or immigration status. These individuals were sent notices in September, and nearly all (except a little over 10,000 people) were cleared by mid-October (Covered California 2014a).

Another goal of the ACA's insurance marketplaces is to make sure there is no wrong door for individuals seeking coverage, requiring marketplaces to have a seamless eligibility determination process for premium tax credits and Medicaid. Covered California has embraced this goal to serve as a “one-stop shopping” experience for individuals. However, in the early days of the ACA rollout the state faced challenges in achieving the goal. By March 2014, the backlog in unprocessed Medi-Cal applications reached an estimated total of 900,000, largely because of difficulties with the Covered California online application system and its coordination with the state's Medi-Cal eligibility software (Kaiser Commission on Medicaid and the Uninsured 2015). This backlog in applications was not completely resolved until early 2015 and ultimately led

1. These state enrollment numbers vary somewhat from federal enrollment data. According to the CMS (2017b), 7.7 million Californians were enrolled in Medi-Cal in July–September 2013, and this has increased to 12.2 million as of April 2017.

consumer advocates to file suit against the California Department of Health Care Services to comply with their requirements for timely processing of Medi-Cal applications (Gorn 2015).

Despite these challenges, 1.4 million Californians shopped and selected a health plan in the first open enrollment period for coverage through Covered California. In June 2014, the effectuated enrollment in plans sold through Covered California was nearly 1.2 million (table 1). This number has remained steady with some slight increases each year, rising to more than 1.4 million in 2018 (Covered California 2018a). About 1 million additional individuals purchase coverage off-exchange, with total individual market enrollment reaching about 2.2 million Californians in 2017 (California Department of Insurance 2018; California Department of Managed Health Care 2017; Wilson 2018).

Premiums for coverage through Covered California have also remained relatively steady over the 5 years of the program. According to Covered California, the statewide weighted average premium for all plans sold through Covered California increased between 2014 and 2015 by 4.2% and by 4% between 2015 and 2016, increases that were similar to or better than the national averages of 0% and 6%, respectively (table 1) (Gabel et al. 2016; Covered California 2016a). Looking only at the benchmark plan's premium, Covered California had a 4% increase after the first year, a 0% increase after the second year, a 9.3% increase after the third year, and a 26.1% increase after the fourth year (table 2) (Kaiser Family Foundation 2014–18a).² These increases are comparable to or better than those seen in states with a federally facilitated marketplace (FFM). Analysis of plan offerings and enrollment decisions in 2014 through 2016 also found that the average premium of plans weighted by enrollment was between 11.6% and 15.2% lower than the average unweighted premium of plans offered through Covered California, indicating enrollees were more likely to choose plans with lower premiums (Gabel et al. 2017).

About 90% of Covered California enrollees receive subsidies from the federal government to help pay for their coverage, and those subsidies cover on average about 70% of the premium cost. Still, as much as 31% of individual market enrollees in California may be missing out on opportunities for financial assistance, either by purchasing plans through the off-exchange market or not purchasing a Silver plan that would afford them access to cost-sharing reductions (Fung et al. 2017). For those with subsidized coverage,

2. This large increase between 2017 and 2018 is due to a surcharge that Covered California required insurance companies to place on Silver plans in order to compensate for the ending of federal payments for cost-sharing reductions. This is discussed in greater detail later in the article.

Table 1 Characteristics of Individual Market in Covered California

Characteristic	2014	2015	2016	2017	2018
Effectuated enrollment	1,173,280	1,318,960	1,384,460	1,386,280	1,418,070
Number of Californians enrolled in subsidized coverage	1,068,550	1,193,270	1,234,030	1,210,390	1,252,490
Subsidized coverage	91%	90%	89%	87%	88%
Average gross monthly premium	\$576	\$594	\$611	\$672	\$559
Average net monthly premium	\$147	\$157	\$172	\$186	\$115
Average monthly advanced premium tax credit	\$429	\$436	\$440	\$499	\$444
Unsubsidized coverage	9%	10%	11%	13%	12%
Average gross monthly premium	\$484	\$510	\$535	\$577	\$446
Weighted average premium rate increase ^a	—	4.2%	4.0%	13.2%	12.5%
Average premium change if consumer switched to lowest-cost plan in same metal tier during open enrollment ^a	—	N/A	-4.5%	-1.2%	+3.3%
Number of health insurance companies offering coverage in Covered California	11	10	12	11	11
Demographic profile of enrollees					
Age (years)					
0–18	4.3%	4.8%	5.4%	6.2%	7%
19–29	13.7%	15.1%	16.6%	17.8%	17.9%
30–44	23.8%	23.6%	23.1%	23.1%	23.3%
45–64	50.1%	50.1%	50.8%	51.6%	51.1%
65+	8.1%	6.5%	4.2%	1.3%	0.7%

Table 1 (continued)

Characteristic	2014	2015	2016	2017	2018
Income					
<138% FPL	2.8%	2.4%	1.8%	2.7%	2.7%
138–250% FPL	45.0%	66.2%	65.2%	62.9%	60.7%
250–400% FPL	13.9%	23.5%	23.7%	24.0%	25.3%
400% FPL+	1.5%	3.0%	3.5%	4.1%	4.3%
FPL unavailable or unsubsidized application	36.8%	4.9%	5.7%	6.3%	7%
Race/ethnicity					
White	38.3%	39.4%	39.7%	39.0%	37.5%
Black	2.5%	2.4%	2.3%	2.2%	2.2%
Latino	27.8%	28.2%	27.9%	27.8%	28%
Asian	23.7%	22.3%	22.6%	23.3%	23.5%
Other	7.6%	7.6%	7.5%	7.6%	8.6%

Sources: Unless otherwise noted, Covered California Active Member Profile, June 2014, March 2015, March 2016, March 2017, and March 2018, all available at hbex.coveredca.com/data-research/.

Notes: FPL, federal poverty level; N/A, information not available, not applicable. Distribution of race/ethnicity only includes those enrollees who reported their race/ethnicity.

^aCovered California 2017d.

Table 2 Characteristics of Individual Market Under the ACA: Federally Facilitated Marketplace (FFMs) and Covered California

Characteristic	FFMs	Covered California
Health care costs in marketplace ^a		
Benchmark premium, 2014	\$183–426	\$300
Benchmark premium, 2015	\$196–488	\$312
Average increase to benchmark premium, 2014–15	2% ^b	4%
Benchmark premium, 2016	\$212–719	\$312
Average increase to benchmark premium, 2015–16	7.2% ^b	0%
Benchmark premium, 2017	\$273–926	\$341
Average increase to benchmark premium, 2016–17	25% ^b	9.3%
Benchmark premium, 2018	\$339–865	\$430
Average increase to benchmark premium, 2017–18	37% ^b	26.1%
Benchmark premium, 2019	\$339–865	\$435
Average increase to benchmark premium, 2018–19	–2%	1.2%
Take-up rates among eligible consumers ^c		
2014	33%	58%
2015	49%	64%
2016	64%	79%
Insurer participation		
Average number of insurance companies participating in market, across first 5 years of the ACA ^a	4.89	11
Customers with a choice between at least two insurers, 2018	71% ^b	95% ^d
Customers with a choice between at least three insurers, 2018	45% ^b	82% ^d
Mean risk score of marketplace enrollees ^e		
2016	1.69	1.11
2017	1.69	1.09

Sources: ^a Kaiser Family Foundation 2014–18a, 2014–18b. Premiums were analyzed using the second-lowest-cost silver (benchmark) premium for a 40-year-old in each county and weighted by county plan selections. Average increase to benchmark plans was calculated from raw data. While the increases given for California are unweighted, those for FFMs are weighted by enrollment.

^b Assistant Secretary of Planning and Evaluation 2014, 2015, 2016, 2017.

^c Lee et al. 2017.

^d Covered California 2017d.

^e Centers for Medicare and Medicaid Services 2017c.

Notes: Numbers for FFMs include those for SBMs that use the federal platform for eligibility determinations and enrollment (AL, AK, AZ, AR, DE, FL, GA, HI, IL, IN, IA, KS, KY, LA, ME, MI, MS, MO, MT, NE, NV, NJ, NM, NC, ND, OH, OK, OR, PA, SC, SD, TN, TX, UT, VA, WV, WI, WY).

the average net monthly premium was less than \$200 each of the 5 years. The monthly premiums for the unsubsidized portion of the market was less than \$600 (Covered California 2018a, 2017h, 2016b, 2015c, 2014f). Much like in the rest of the country, however, in 2017 premiums increased more than they had in previous years (13.2%). Analyses largely attributed this increase to the end of the federal reinsurance program (Cox and Levitt 2017). For 2018, Covered California premiums rose by a weighted average of 12.5%, with an additional 8–27% increase for Silver plans sold on the exchange in order to cover the cost of the defunding of cost-sharing reductions at the federal level. A large portion of the 12.5% increase (about 7%) was attributable to increased medical spending, according to Covered California.

There are 19 rating regions in the state under the ACA. Covered California decided to have more rating regions that represent smaller areas to reduce the amount of cross-subsidization between different regions within the state. Premiums in these regions vary substantially, with northern counties having, on average, higher premiums than southern counties. In 2018, the average premium for a 40-year-old living in Northern California was \$496 a month compared to \$379 for a 40-year-old in Southern California (Covered California 2017d).

Competition in the individual market has been robust during the 5-year period. Between 10 and 12 insurance companies have sold coverage through Covered California each year for an average of 11 issuers between 2014 and 2018. This is higher than the average number of insurers participating in FFMs, which during the first 5 years of the ACA averaged 4.89 insurers (table 2) (Kaiser Family Foundation 2014–18b).³ In all years except 2015, consumers in every county in the state had at least two issuers to choose from when selecting coverage (Covered California 2015e, 2014d, 2017b, 2014g). Returning customers also saw decreases in their premiums. In 2016, consumers could reduce their premiums by an average of 4.5% if they switched to a lower-cost plan within the same metal tier and by an average of 12% in 2017 (table 1) (Covered California 2015e, 2016a). In the open enrollment period for 2015, the first-time individuals could decide to renew their coverage or change plans, and approximately 40% of customers visited the online application to explore the options available to them and see if they wanted to change their health plan. About 6% of consumers selected a different plan from the one they were enrolled in for 2014 (Covered California 2015d).

3. The number of participating insurers in FFMs ranged from 1 to 11 in 2018, 1 to 13 in 2014, 1 to 15 in 2017, and 1 to 16 in 2015 and 2016.

Eleven insurance companies returned to the Covered California market to offer plans for 2018. Although not every Californian had a choice between carriers for 2018, 95% of consumers could choose between at least two insurers, 82% could choose from three or more, and no counties were bare. At the national level among states with FFMs, 19% of consumers could choose between at least two insurers in 2018, and 45% could choose between three. Both of these numbers are down from 2017, when 79% of FFM customers had a choice between at least two insurers, and 56% had a choice between at least three (table 2) (Assistant Secretary of Planning and Evaluation 2017). Leading up to the 2018 open enrollment period, there was great uncertainty around whether or not there would be any bare counties in the country. However, by the time open enrollment began, all counties had at least one insurance company offering coverage to customers through the marketplace.

Covered California enrollees are also a healthy mix of individuals. A recent analysis of data on Covered California customers found that, statewide, they had a mean risk score of 1.09 in 2017, down from 1.11 in 2016 (Covered California 2017b). The risk score of California enrollees is lower than those in FFMs (risk score = 1.69) or other state-based marketplaces (SBMs; risk score = 1.53) (table 2; data for other SBMs not shown) (CMS 2017c). The age distribution of Covered California consumers has gotten somewhat younger over the first 5 years of implementation. In 2014, about 58% of consumers were 45 years and older, compared to about 52% in 2018 (table 1). In 2016, of the 3.05 million remaining uninsured, an estimated 322,000 were eligible for Medi-Cal and another 401,000 for subsidies, while 1.79 million were ineligible due to immigration status and 550,000 had incomes too high to qualify for subsidies (Dietz et al. 2016).

The Individual Market in California before the ACA

Before the passage of the ACA, the individual market in California covered about 1.5 million people (fig. 2). Enrollment in the individual market had been decreasing in California after reaching a high of about 3 million in 2006 (Wilson 2011). Although the California Department of Insurance and Department of Managed Health Care tracked enrollment numbers in the individual and small group markets, it was much more difficult prior to the ACA to get information on plan costs. There was no standardization in plan rates as health insurers could risk rate each individual customer. Premiums also varied by age, with older adults paying as much as five times that of younger Californians. In 2011, for example, a sampling of

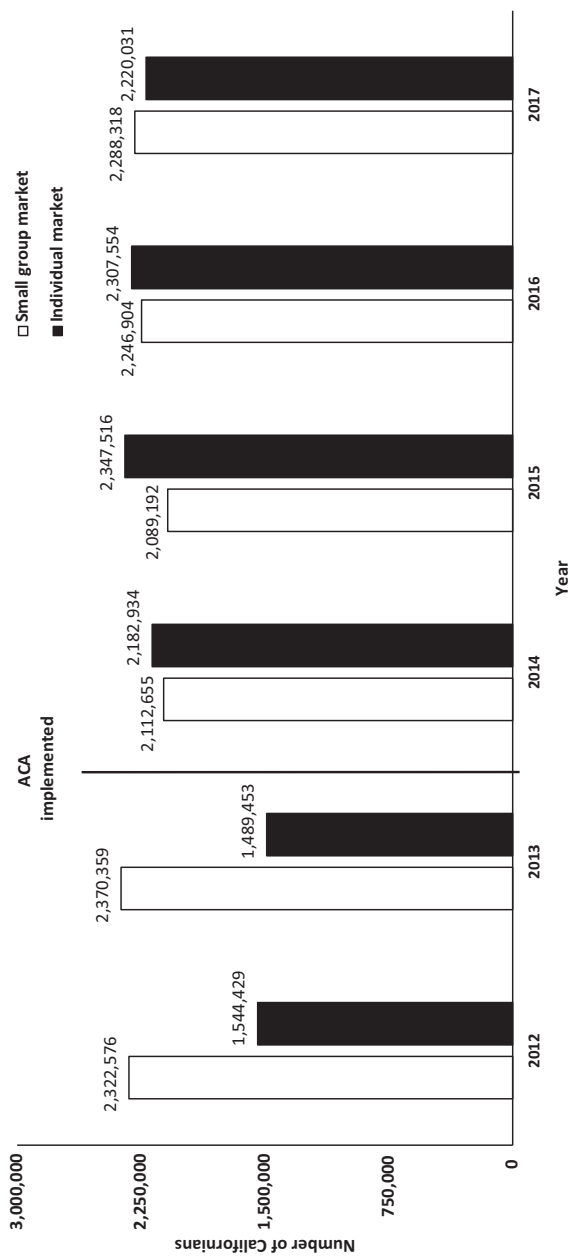


Figure 2 Enrollment in California's Individual and Small Group Markets, 2012–17.

Sources: California Department of Insurance 2015, 2016, 2017, 2018; California Department of Managed Health Care 2014, 2015, 2016, 2017; Wilson 2015, 2018.

Table 3 Characteristics of California's Individual Market Before the ACA

Characteristic	Value
Health care costs on the individual market	
Average premium increase 2009–10 ^a	15.7%
Average actuarial value, 2009 ^b	55%
Expected out-of-pocket costs, 2009 ^b	\$2,180
Enrollees in high deductible health plan, 2011 ^b	69%
Access to care	
Delayed or went without needed care because of cost, 2012 ^c	11%
Demographic profile of enrollees, 2013 ^c	
Age (years)	
0–17	17.2%
18–24	18.1%
25–39	25.3%
40–64	39.1%
65+	0.2%
Income	
<100% FPL	8.3%
100–199% FPL	16.0%
200–299% FPL	17.5%
300% FPL+	58.2%
Race/ethnicity	
White	58.7%
Black	2.2%
Latino	19.2%
Asian	14.9%
Other	4.9%

Sources: ^a Gruber 2014.

^b Wilson 2011.

^c California Health Interview Survey 2012, 2013; UCLA Center for Health Policy Research 2012, 2013.

Note: FPL, federal poverty level.

available health insurance plans found that monthly premiums ranged from \$113 to \$205 for a 26-year-old, from \$116 to \$238 for a 32-year-old, from \$199 to \$222 for a 42-year-old, from \$311 to \$376 for a 52-year-old, and from \$410 to \$777 for a 64-year-old. These premiums were also very changeable from year to year; one analysis estimated that in 2010 the average premium rate in California for plans in the individual market increased 15.7% over 2009 rates (table 3) (Gruber 2014).

Out-of-pocket costs in the individual market prior to the ACA were also quite high in California. An estimated 69% of individual market enrollees

were enrolled in plans with high deductibles in 2011, while only about 35% of those in the small group market and 1% of those in the large group market were enrolled in high deductible health plans that year.⁴ Similarly, the actuarial value of individual market plans in California was much lower than that of plans in the group market (55% vs. 85%, respectively). This lower actuarial value and high enrollment in high-deductible health plans translated into higher out-of-pocket costs. In 2009, expected out-of-pocket expenses were about \$2,180 on the individual market, compared to only \$748 in the group market (Wilson 2011). These high out-of-pocket costs played a role in customers delaying or foregoing needed medical care because of costs. According to the 2011–12 California Health Interview Survey, 16.1% of Californians with coverage through a high-deductible plan in the individual market delayed needed medical care because of the cost (table 3) (Charles et al. 2014).

Furthermore, prior to the ACA, people with chronic illnesses, older adults, and lower-income individuals were often priced out of the individual market. Nearly 60% of enrollees had incomes 300% of the federal poverty level or higher, were white, and were below the age of 40 (table 3).

California's ACA Implementation

As a diverse state, both demographically and geographically, California faced challenges in successfully implementing the ACA. State legislators recognized this early on and embraced reform. California submitted and was approved to begin an early expansion of Medicaid under an 1115 waiver from the Centers for Medicare and Medicaid Services (CMS). The approved waiver built on a previous 1115 waiver demonstration project in 10 counties known as the Health Care Coverage Initiative, which provided federal matching funds for counties to expand services under their indigent care programs and to enroll uninsured adults not eligible for Medi-Cal. The new waiver program, part of the state's "Bridge to Reform" proposal to CMS, allowed all California counties to provide health care coverage to low-income individuals through the LIHP, with the federal government paying for 50% of the cost of care for beneficiaries (Thomason and Long 2014). The income eligibility for coverage ranged from 25% to 200% of the federal poverty level and was based on citizenship status, age, income, county of residence, and not being pregnant. LIHP launched in 2011, and

4. High-deductible health plans are those that have a minimum annual deductible of \$1,200 for an individual (\$2,400 for families) and a maximum out-of-pocket and deductible amount of \$5,950 for an individual (\$11,900 for families) for in-network services.

by 2013, the last year of the program, 53 of 58 counties in the state had established LIHPs and covered more than 650,000 Californians (Kominski et al. 2013; UCLA Center for Health Policy Research 2013). Although LIHP was not a true Medicaid expansion, it provided a head start for enrollees to gain coverage prior to their actual enrollment in Medi-Cal in January 2014, when more than 650,000 Californians were seamlessly transferred into Medi-Cal under the ACA's Medicaid expansion (California Department of Health Care Services 2017). Those LIHP enrollees with incomes above the eligibility threshold for Medi-Cal were referred to Covered California, where about half of them were eligible to purchase coverage (Thomason and Long 2014).

On the private insurance side of reform, within 6 months of the signing of the ACA into federal law, California became the first state to pass legislation establishing a health insurance marketplace. One of the defining aspects of Covered California is that it is an "active purchaser": the exchange negotiates premiums with insurance companies and reviews applications from health insurers before approving them to sell plans in the marketplace (Covered California 2014d; Scheffler et al. 2016). California law requires that Covered California selectively contract with insurers that provide "health care coverage choices that offer the optimal combination of choice, value, quality, and service" (Weinberg and Haase 2011: 8). This competitive bidding process ensures that there are an adequate but not overwhelming number of plans for consumers to choose from, all of which offer enrollees a comprehensive set of services and access to a robust provider network. Allowing only those plans that meet the standards set by the purchasing agent (in this case, Covered California) to be sold to customers on the market is a key aspect of Alain Enthoven's (1978, 1993) model of managed competition, an idea that strongly influenced the ACA's architects. In the first year of operation, 33 insurers submitted bids to participate in Covered California, resulting in 13 insurers being selected to offer plans through the exchange.⁵ Most states have opted to take a more passive role in certifying qualified health plans to sell coverage through the marketplace, and only three other states (Massachusetts, Rhode Island, and Vermont) specified in the legislation creating their state marketplace that the exchange should act as an active purchaser (Dash et al. 2013).

The state law establishing Covered California also included a number of provisions aimed at easing the process of enrolling in coverage and creating

5. One plan in 2014 was later removed from the exchange, as it was not approved by the state to sell health insurance in the commercial market.

an even playing field between Covered California and the off-exchange individual market. To facilitate comparison shopping, Covered California requires all insurers to offer a standardized benefit design within each metal tier (i.e., Bronze, Silver, Gold, and Platinum). Standardizing policies to promote comparisons of similar products by price is another key component of Enthoven's (1978) managed competition. Covered California's plan standardization allows consumers to only look at the premium levels, quality ratings, and provider networks of plans in the same metal tier when deciding which one to enroll in. The standard benefit design is reviewed and adjusted each year to make sure it is best serving patients. For example, in 2017, copays for customers in Silver, Gold, and Platinum plans were reduced for primary and urgent care visits.

Silver plans sold through Covered California also must provide access to outpatient services without making them subject to a deductible, a requirement that no other SBM has yet made for plans sold through the individual market. The number of services that fit into this category increased over the first 4 years of the program and for 2017 included an annual wellness exam; primary care, urgent care, specialist, and emergency room visits; laboratory tests; X-rays and diagnostics; imaging; and generic drugs (Covered California 2017e).⁶ Gold and Platinum plans do not have deductibles, and Bronze plans also offer some out-of-pocket cost protections by allowing customers to have three deductible-free visits to a primary care physician or specialists each year, along with an annual wellness exam and laboratory tests. Premiums can vary among people based on age, family status (individual or family plan), and geography, as allowed under the ACA. The state decided to not allow plans to vary premiums by smoking status, although federal law permits this.

Health insurers selected to offer qualified health plans through Covered California are required by state law to offer a plan in each of the four metal tier coverage levels, both inside and outside of the exchange. Even those insurers who do not participate in Covered California must offer the full range of metal tiers plans if they sell coverage in the off-exchange individual market. For those insurers who participate in the exchange, all plans that are offered in the off-exchange market must also be sold through Covered California at the same price, in compliance with federal law, to prevent "cream skimming" into the off-exchange market.

To encourage early participation from health insurers in Covered California, the exchange participated in multiyear contracting in its first 2 years

6. Enhanced Silver 94, Gold, and Platinum plans also provide deductible-free access to nongeneric drugs.

of operation. Insurers that did not receive a contract in the first year were not eligible to sell plans in 2015 either.⁷ Product changes were also not allowed in 2015. Carriers that participate in Covered California are the only ones that are allowed to offer catastrophic coverage (meaning that the enrollee pays for the cost of all of their care until the out-of-pocket maximum has been reached).

California also decided against allowing grandmothers plans to stay in the market. Grandmothered plans are plans that began between policy years March 2010 and October 2013 and do not comply with the ACA's coverage requirements. While not originally included in the ACA's legislative language, the Obama administration issued regulations giving states the opportunity to allow grandmothered plans to remain in effect through 2018. This decision came after the negative response from people in these plans when they learned their coverage would be cancelled starting in 2014, even after President Obama had promised that "if you like your health care plan, you can keep your health care plan" throughout the promotional rollout of the law (Jost 2017a). Most people who would stay in the risk-rated and less generous grandmothered plans are likely to be healthier. Therefore, in states that allowed grandmothered plans to stay in the market, this transitional policy may have contributed to rising premiums and insurer losses in 2014 (American Academy of Actuaries 2014; Huth and Karcher 2016).

The ACA has fundamentally changed the type of insurance products purchased in the individual market. Between 2013 and 2015, the percentage of enrollees who purchased policies regulated by the Department of Managed Health Care rose from 30% to 86%, while actual HMO enrollment increased from 32% to 39% (Wilson 2017). The Department of Managed Health Care regulates all HMOs and two large PPOs, and enrollment in these two PPOs grew by more than 800,000 members during this period.

Covered California has also been proactive in designing and implementing tools to facilitate plan selection. In January 2014, during the last few months of the first open enrollment period, a star quality rating system was put into place (Covered California 2014b).⁸ The ratings were originally based on a 4-star system and used data from the Consumer Assessment of Healthcare Providers and Systems survey (Covered California 2014b) to provide potential customers with an easy-to-interpret

7. Exceptions to this rule were made for new entrants to the market and for Medi-Cal plans.

8. The federal marketplace, by comparison, began piloting the use of health plan quality ratings only during the 2018 open enrollment period, and these star ratings were used only in Virginia and Wisconsin (healthcare.gov n.d.). Seven other SBMs (Colorado, Connecticut, Maryland, Minnesota, New York, Rhode Island, and Washington) use quality ratings in their plan comparisons on their online platforms, some of which have been doing so since 2015 (Greene, Hibbard, and Sacks 2016).

evaluation of how the plan's perceived quality by other customers compares to other plans available in the western region of the United States. For 2018 coverage, the quality ratings were improved to compare members' experience and medical care to national standards. The ratings use three composite measures (getting the right care, members' care experience, and members' plan service experience) to create an overall summary measure that is displayed alongside the plan information to consumers while they shop (Covered California n.d.) In 2015, Covered California added a series of questions to assist individuals in selecting a plan based on their expected level of utilization during the upcoming year. These consumer-friendly policies led *Consumer Reports* to put Covered California on its "Nice" list for 2015, and each year the marketplace continues to improve and innovate (Covered California 2015a). For the open enrollment period for 2017 coverage, Covered California also started ordering plans by estimated yearly cost and added an out-of-pocket cost calculator to make it easier for customers to determine how much they could expect to pay overall rather than just on premiums (Rao, Hewitt, and White 2017).

The exchange also prioritized outreach programs to educate potential enrollees about the availability of affordable health care coverage. For the 2014 open enrollment period, the state spent \$45 million on advertising. Through 2014, Covered California also provided \$40 million in grants to community-based organizations that were best equipped to provide targeted outreach to eligible populations (Community Health Councils 2013). The exchange also supported a robust program for enrollment assisters to help consumers enroll in coverage. Certified enrollment counselors are paid \$58 for each individual they initially enroll in a Covered California health plan or Medicaid and \$25 for renewals (Covered California 2014e). Learning from the first open enrollment period, Covered California expanded the number of enrollment assisters it used even more and began the 2015 open enrollment period with more than 12,000 certified insurance agents, 10,000 county eligibility workers, and 6,400 certified enrollment counselors (Covered California 2014c).

Overall, in 2015 and 2016, Covered California spent \$265 million on marketing and outreach investments, and consumers have benefited from this heavy investment, with 60% of Covered California customers receiving some level of assistance during the enrollment process for coverage in 2017 (Lee et al. 2017). A recent survey by Covered California provides evidence for continued support for marketing and outreach. The survey found that nearly 75% of subsidy-eligible uninsured Californians did not think they were eligible for financial help or were not sure (Covered

California 2017f). Accessing this population will require continued marketing efforts as well as partnered outreach with community partners. Reflecting this, budgeting for 2018 marketing and outreach in California was increased by \$5 million over 2017, to \$111 million (Covered California 2017c). Meanwhile, at the national level, massive changes were made. While the federal government originally dedicated significant resources for marketing and outreach in states with FFMs (\$118.2 million in 2016 and \$163 million in 2017 after an initial investment of \$217 million in 2014), under the Trump administration the budget was cut considerably (Hill, Wilkinson, and Courtot 2014). The 2018 proposed budget for all 39 states with FFMs dropped 71% from 2017 levels to \$46.8 million. An analysis from Covered California estimates that if the federal government were to provide the same amount of resources for marketing and outreach as California does, as a percentage of premium, it would need to have spent \$480 million in 2018. With this increase to the marketing and outreach budget, the analysis estimates that an additional 1.3 million Americans would sign up for subsidized coverage through FFMs (Lee et al. 2017).

The flexibility that Covered California has shown during the first years of implementation has allowed more Californians to enroll in coverage, including extending enrollment deadlines to help manage the surge of shoppers toward the end of open enrollment periods. Covered California also worked with state revenue agencies and tax preparers in 2015 to allow for a special enrollment period during tax season for Californians who were unaware of the tax penalty for not having health insurance until they went to file their taxes for the year (Covered California 2015b).

Finally, there has recently been a significant amount of uncertainty about the ACA at the national level. The Republican led Congress spent the first 9 months of 2017 working on bills to repeal the ACA through budget reconciliation. While these bills ultimately failed and the ACA remains the law of the land, the Trump administration has taken a number of steps to undermine the law. In October 2017, President Trump announced that the federal government would stop making payments to health insurance companies for the cost-sharing reductions (CSRs) they provide as required by the ACA (Liptak, Luhby, and Mattingly 2017). Prior to this announcement, the Department of Health and Human Services under President Trump had been making these payments on a monthly basis without a promise of future payments, causing great financial uncertainty for insurers. Even before the final announcement that the federal government would stop making the CSR payments, Covered California took steps to stabilize the individual market and added a surcharge to all Silver plans sold through the exchange for 2018 (Covered California

2017d). This surcharge covers the amount of money needed for insurers to provide the CSR subsidy program in the absence of federal payments. Subsidized consumers enrolled in these plans did not see an increase to their net premium, however, as their federal premium subsidy also increased. Unsubsidized customers are able to buy the same plan without the surcharge in the off-exchange individual market, and all customers who purchase Bronze, Gold, and Platinum plans are not negatively affected by the CSR payment cancellation. After the state's announcement, the US Department of Health and Human Services released guidelines for other states that decide to go a similar route to deal with CSR payment uncertainty and extended the deadline for 2018 rate filings to allow more states to consider implementing a similar strategy (Jost 2017b).

The reductions in federal marketing and outreach have been another way that the Trump administration has used its power to disrupt the ACA. As an SBM, however, California was not affected by these actions and instead took a proactive stance, increasing its funding to continue to find and enroll harder-to-reach populations. Similarly, the Trump administration greatly reduced the open enrollment time period for consumers in states using HealthCare.gov from November 1–January 31 to November 1–December 15, cutting 45 days off the time frame for enrollment (Shafer and Dusetzina 2017). Again, Covered California decided to ignore the federal standard and instead allowed individuals to sign up for coverage through January 31, as in previous years.

Finally, the GOP tax bill passed at the end of December 2017 zeroed out the ACA's individual mandate tax penalty, effective in 2019. While the individual mandate technically remains in the law, this move via the tax bill removed the mandate's financial incentive and has been likened to repeal of the individual mandate. The Congressional Budget Office (2017) estimated that repealing the individual mandate will increase the number of uninsured individuals by 4 million in 2019 and 13 million in 2027 and reduce the federal deficit by \$338 billion over the 2018–27 period. The Congressional Budget Office also estimates that premiums in the individual market would increase by 10% under a repeal of the individual mandate. In their 2019 rate booklet, Covered California reported insurers added between 2.5% and 6% to their premium rates in the first year following the zeroing out of the individual mandate penalty as a result of concerns about the health risk of the individual market pool (Covered California 2018c). Using the California Simulation of Insurance Markets (CalSIM) microsimulation model, researchers at UCLA and UC Berkeley estimate that between 150,000 and 450,000 more Californians will be uninsured in 2020, increasing to between 490,000 and 790,000 more uninsured Californians

by 2023 as a result of the zeroing out of the individual mandate penalty (Dietz et al. 2018). Covered California's executive director, Peter Lee, has been an outspoken critic of the changes the Trump administration has made, including the repeal of the tax penalty associated with individual mandate (Covered California 2017g). Although no action has yet been taken by California, the state may pass legislation to create its own individual mandate penalty, something that has been discussed by state policy makers and supported by Mr. Lee (Kliff 2017).

Throughout this time of federal uncertainty, Mr. Lee has also encouraged his staff to undertake proactive research on the potential effects of various federal efforts to repeal or reduce the effectiveness of the ACA. Grantees and staff researchers for Covered California have released a number of reports detailing the negative impacts of GOP proposals to repeal the ACA, as well as early estimates on the effects of stopping CSR payments. This forward-thinking approach has led to minimal disruption in the individual market, as evidenced by stable insurer participation and good enrollment numbers, even during a period of such great uncertainty. Data from the 2018 open enrollment period show that enrollment was up 3% over 2017, and even though there were significant increases to premium costs in 2018 compared to 2017, Californians receiving financial assistance for coverage through Covered California will pay less for health coverage in 2018 than in 2017 (Covered California 2018b). For those not eligible for financial assistance, the average increase in monthly premium was \$55 (Covered California 2018b).

When the ACA first passed, California quickly embraced the law and took steps to fully implement its provisions. Today, the state continues to lead the way in innovative approaches to improve the individual market for all stakeholders and stabilize the market in the face of uncertainty. How the state moves forward to protect consumers and its individual market will be closely watched in the next several years.

Conclusion

In its first 5 years of business, Covered California has been successful at keeping costs low, attracting customers, and encouraging insurer participation. For 2018, in the face of great uncertainty for the future of the ACA, the agency continued to take preemptive steps to protect consumers and insurers. California's successful implementation of the ACA comes after years of foundational work by the state and stakeholder groups to create competitive markets, identify populations in need, and promote consumer-focused policies. By the time the ACA was passed, the state was

ready to embrace reform and moved to immediately implement the law, quickly bringing the ACA's benefits to millions of residents. Whether the state will be able to maintain these significant accomplishments will depend in part on the outcome of "repeal and replace" efforts that continue to be discussed in Congress. But, in keeping with California's tradition of continually looking to build on previous efforts to move toward universal access, stakeholders met during 2017 in Sacramento and in large counties around the state, such as Los Angeles, to explore contingency plans for preserving the progress made by the state and Covered California in establishing a competitive marketplace for 2.3 million Californians in the individual market and expanding Medi-Cal to 3.8 million adults. In 2016, California expanded Medi-Cal using state funds to all low-income children 18 and younger regardless of immigration status. And in his first budget proposal since taking office in 2019, Governor Newsome proposed expanding Medi-Cal to low-income adults age 19–25 regardless of immigration status, instituting a state individual mandate penalty, and increasing premium and cost-sharing subsidies for coverage purchased through Covered California. While parts of the country would prefer to return to a pre-ACA world and only do the bare minimum in terms of implementing the health reform law, California continues its long arc of progress toward universal access to health care.

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Acknowledgments

We acknowledge the California Endowment for its support of the California Health Policy Research Program and the California Simulation of Insurance Markets (CalSIM) microsimulation model, which is used to estimate the impact of the ACA on California, and Covered California for its support of CalSIM.

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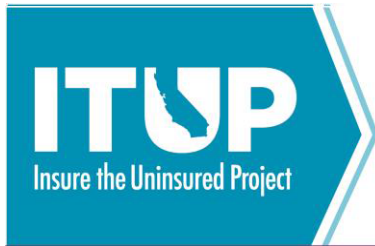
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2019-20 Final State Budget Health Care Highlights

June 27, 2019

Final 2019-20 State Budget Continues the Move Toward Universal Coverage

The final 2019-20 state budget (and related legislation) recently signed by Governor Newsom moves California steps closer to universal coverage, improves coverage affordability in the individual market, and invests in system improvements in Medi-Cal, mental health services and services for homeless individuals.

The budget appropriates \$215 billion in total state spending. The final budget, among other things:

- Expands Medi-Cal to cover low-income undocumented young adults age 19-25;
- Extends Medi-Cal eligibility to low-income seniors with incomes up to 138 percent of the federal poverty level (FPL), addressing a gap in the existing eligibility formula;
- Establishes state subsidies, above the level of federal Affordable Care Act (ACA) subsidies, for individuals who buy coverage through the state's ACA marketplace, Covered California;
- Requires all Californians to maintain minimum health care coverage and establishes a state penalty for failure to do so; and
- Allocates Proposition 56 tobacco tax revenues to, among other things, Medi-Cal provider rate increases, payment reform, workforce programs and trauma screening for Medi-Cal recipients.

Healthy California for All Commission

The budget revises the focus of the five-member Council on Health Care Delivery Systems (approved in the 2018 Budget Act), renames it the Healthy California for All Commission (Commission) and increases its membership from five to 13. The Commission is charged with developing options for achieving health care delivery through a unified financing system, including, but not limited to, developing a single-payer financing system for all Californians. The budget requires the Commission to submit specified reports in 2020 and 2021 to the legislature and the governor outlining the options and key considerations in transitioning to a unified financing system.

Health Care Coverage and Affordability

Medi-Cal Expansion to Undocumented Young Adults

The budget includes \$98 million (\$74.3 million General Fund) to expand eligibility for full-scope Medi-Cal (California's Medicaid program) to an estimated 90,000 undocumented, low-income young adults 19-25 years of age.

Background. Undocumented individuals are not eligible for federal Medicaid, except for emergency and pregnancy-related services (sometimes referred to as restricted scope Medicaid) and states cannot receive federal Medicaid matching funds for other services for these

individuals. In 2016, California established a state program, using state funds to make up for the lack of federal match, to extend comprehensive Medi-Cal coverage to all low-income children up to age 19 regardless of immigration status. In subsequent years, the legislature has considered but failed to pass multiple budget and legislative proposals to cover undocumented adults.

“Full-scope Medi-Cal” is the comprehensive program that covers primary and preventive medical care, prescription drugs, dental, mental health, and substance use treatment, among other benefits. The budget extends full-scope coverage to low-income young adults 19-25 regardless of immigration status.

For more information on the complex set of programs and services available to California immigrants, see the ITUP [Fact Sheet](#), *Health Care Programs for California Immigrants* (released prior to the final budget).

Medi-Cal Expansion for Low-Income Seniors Not Covered under ACA

The budget appropriates \$124.9 million (\$64 million General Fund) to extend full-scope Medi-Cal to seniors with incomes up to 138 percent FPL (household income of \$17,237 for an individual). This expansion makes qualifying seniors eligible for the same coverage as low-income adults 19-64 with incomes up to 138 percent FPL.

Background. Under the ACA, most uninsured adults under age 65 with incomes up to 138 percent FPL became Medi-Cal eligible, but the ACA Medicaid expansion does not cover adults 65 and over.

In California, low-income seniors and persons with a disability access comprehensive Medi-Cal coverage under the Aged and Disabled (A&D) Program. The A&D program covers seniors and persons with a disability with incomes up to 100 percent FPL, plus a standard income disregard of \$230 for an individual and \$310 for a couple, establishing the income limit at approximately 124 percent FPL (\$15,613 annual income for an individual). Above 124 percent FPL seniors pay a monthly out-of-pocket amount (share of cost), similar to a health insurance deductible, before Medi-Cal coverage begins.

The budget extends Medi-Cal eligibility to an estimated 27,000 seniors whose income for eligibility purposes is calculated to be 124-138 percent FPL.

State Individual Coverage Requirement

The budget includes a requirement that all Californians maintain a minimum level of health insurance coverage, or pay a penalty, unless they qualify for an exemption.

Background. The ACA includes a minimum coverage requirement, and federal tax penalty, but Congress set the penalty at \$0 beginning January 2019.

New enrollment in Covered California dropped significantly following the elimination of the federal penalty. In response, Governor Newsom proposed the individual mandate along with additional state financial assistance as outlined below. For more information on the impact of the elimination of the individual mandate tax penalty on Covered California, read the ITUP [blog](#), *Covered California Announces 2019 Enrollment*.

Covered California will develop the structure for the coverage requirement and the penalty, including any exemptions, and the state Franchise Tax Board will administer the tax penalty.

State Financial Assistance for Individuals Enrolled in Covered California

The budget includes a total of \$1.45 billion over three years for state-based financial assistance, beyond existing federal ACA subsidies, to increase affordability for individual coverage in Covered California. The funding will come, in part, from the penalties Californians will pay for not having a minimum level of health insurance coverage as described above.

Background. Under the ACA, individuals with incomes at 100-400 percent FPL (\$48,560 for an individual and \$100,400 for a family of four) buying individual coverage through a state marketplace are eligible for premium tax credits to reduce the premiums they pay. California is the first state to offer state-based financial assistance for middle income individuals to help them afford coverage.

In January, the legislature introduced proposals to provide state-based financial assistance and Governor Newsom included similar language in his proposed budget. The final budget provides state assistance for individuals with incomes between 200-600 percent FPL (up to \$72,840 for individuals and \$150,600 for a family of four.)

Covered California projects that 187,000 people will become newly insured in coverage year 2020 with this budget deal.¹

For 2019-20, the budget includes \$428.6 million to be allocated as follows:

- 17 percent for individuals with incomes 200-400 percent FPL, and
- 83 percent for individuals with incomes 400-600 percent FPL, and to reduce premiums to \$0 for an estimated 20,000 individuals with incomes at or below 138 percent FPL who are not eligible for Medi-Cal, primarily Lawfully Present Immigrants (LPI), including immigrants with Temporary Protected Status (TPS). For more on immigrant categories see the ITUP [Fact Sheet](#), *Health Care Programs for California Immigrants* (released prior to the final budget).

In determining federal financial assistance amounts, individuals' year-end income is reconciled with their projected income at the start of the coverage year. For individuals above 400 percent FPL at year-end, they must repay some of the subsidies they received, while individuals at or below 400 percent FPL by year-end will hit a repayment dollar cap. Covered California will consider the structure for state repayment caps and will report back to the board in August.

Other Medi-Cal Budget Issues

Restoration of Optional Benefits

The final budget includes \$17.4 million General Fund for 2019-20 (\$40.5 million in future years) to restore for three years most of the Medi-Cal optional benefits eliminated during the 2009 recession, including audiology, incontinence creams/washes, optical, podiatry, and speech therapy. Suspends funding on December 31, 2021 unless certain conditions are met.

Background. Federal law requires states to provide specific mandatory benefits in their Medicaid programs and allows states to add other “optional” benefits. Federal matching funds are available for both optional and mandatory Medicaid benefits.

In 2009, California eliminated various optional Medi-Cal benefits to help address a significant budget deficit. Previous state budgets have restored some of these optional benefits such as adult dental. With this year’s budget action, chiropractic care is the only previously eliminated optional benefit not restored in Medi-Cal.

Renewal of the Managed Care Organization (MCO) Tax

The budget authorizes the state to pursue renewal of the federal authorization for the MCO tax which allows the state to draw down more than \$1 million in federal Medicaid matching funds for the revenues collected. Federal authority for the MCO tax is scheduled to expire on July 1, 2019.

Background. To renew the MCO tax, the administration must secure federal approval. The Senate and Assembly budget committees estimated between \$858 million - \$1.4 billion in federal revenue the state could receive. The final budget does not estimate General Fund savings tied to receiving federal matching funds with an MCO tax. The Newsom Administration has expressed concerns about securing a renewal of the MCO tax given uncertainty under the Trump Administration.

Transition of Pharmacy Services in Medi-Cal Managed Care (MCMC) to Fee-for-Service

The Governor proposed to transition pharmacy services under MCMC to the Medi-Cal Fee-for-Service (FFS) program. The final budget directs the Department of Health Care Services (DHCS) to establish a pharmacy advisory group to inform and receive feedback from stakeholders on the anticipated changes for managed care plans and beneficiaries. DHCS must update the advisory group and other stakeholders on anticipated changes to beneficiary access to medications and expected savings resulting from the transition.

Background. On January 7, 2019, the governor issued an executive order directing various state agencies to take actions intended to lower prescription drug costs. The executive order directs DHCS to transition the MCMC pharmacy benefit to the Medi-Cal FFS program by 2021. According to the Legislative Analyst’s Office, under current state law, the administration has the authority to carve-out the pharmacy benefit from managed care contracts without additional legislative authority.

The Governor has argued that the state can effectively negotiate better drug prices and estimates \$393 million in annual General Fund savings beginning in 2022-23.

Allocation of Proposition 56 (Prop 56) Tobacco Tax Revenues

The budget allocates tobacco tax revenues under Proposition 56 as follows:

- \$2.7 billion (\$824.1 million Prop 56 funding plus federal Medicaid match) for supplemental provider payments to physicians, dentists and other Medi-Cal providers. This amount includes \$500 million (\$50 million Prop 56 funding) for family planning services. Additionally, authorizes funding for the following two fiscal years.

- \$544.2 million (\$250 million Prop 56 funding) for three years to establish a Value-Based Payments Program that provides provider incentives, through MCMC plans, to meet specific performance measures related to clinical care,
- \$105 million (\$52.5 million one-time Prop 56 funding) for developmental and trauma screenings,
- \$50 million (\$25 million one-time Prop 56 funding) for provider training to deliver trauma screenings,
- \$120 million in additional one-time funding for the Physicians and Dentists Loan Repayment Program through CalHealthCares. Last year’s budget appropriated \$220 million in Prop 56 funding for CalHealthCares. To be eligible for loan repayment, practitioners must be Medi-Cal providers and agree to maintain a patient caseload of at least 30 percent Medi-Cal beneficiaries.

Background. California levies a \$2.87 per pack tax on cigarettes, including the \$0.87 tax added in 2016 when voters passed Prop 56. Prop 56 also taxes tobacco products. Funds from Prop 56 serve various purposes, including provider rate increases aimed at ensuring timely access to quality care for Medi-Cal beneficiaries. To date, policymakers have appropriated Prop 56 revenues for supplemental provider payments, managed care rate increases, loan repayment programs, and for year-over-year growth in Medi-Cal expenditures.

New Funding for Whole Person Care (WPC) Pilots

The budget includes \$120 million one-time General Fund for the WPC pilots. Implemented under California’s current §1115 federal Medicaid waiver, known as Medi-Cal 2020, the WPC pilots coordinate health, behavioral health, and social services for individuals who access multiple systems of care. The final budget includes \$100 million to existing WPC pilots for supportive housing services for homeless, mentally ill beneficiaries and \$20 million for counties without WPC pilots to implement programs focused on coordinating health, behavioral health, and social services for similarly vulnerable beneficiaries.

Health Home Program Implementation Timeline

The budget extends the timeframe funds are available for the Health Home Program (HHP) implementation from June 30, 2020 to June 30, 2024. The HHP provides enhanced care coordination services for members with certain chronic health conditions and/or a serious mental illness. MCMC plans in San Francisco County began implementing the HHP on July 1, 2018. MCMC plans in 13 additional counties have begun or are planning to implement the HHP in phases, with the last health plan implementing on January 1, 2020. The timeline extension in the budget is consistent with the current timeline for implementing this program.

Background. States implementing the HHP are eligible for an enhanced federal match for a two-year implementation period. As in California, the implementation period can be phased-in. In California, the state does not provide the state match (nonfederal share) to implement HHP. To support care coordination services, the California Endowment (TCE), a private nonprofit foundation, provides the funding for HHP implementation to help secure the enhanced federal match.

Health Enrollment Navigator Funding

The budget includes one-time, two-year funding of \$60 million (\$30 million General Fund) for health enrollment navigators to reinstate and continue this enrollment support for Medi-Cal

beneficiaries. Navigators provide outreach, enrollment, retention, and utilization assistance in Medi-Cal.

Background. In 2014, as mentioned, the ACA expanded Medicaid to new populations. To supplement county efforts to enroll newly eligible populations, TCE provided DHCS with \$12.5 million for health enrollment navigators. These funds were exhausted by June 30, 2018.

Multipurpose Senior Services Program (MSSP) Rate Increase

The budget includes \$14.8 million in a one-time, three-year General Fund appropriation for supplemental rate increases benefiting local MSSP sites. MSSP is a 1915(c) Home and Community-Based Services federal Medicaid waiver program, providing care management and supplemental services to assist Medi-Cal beneficiaries age 65 and older at risk of nursing facility placement remain at home.

Behavioral Health Services

The budget includes the following augmentations for behavioral health services in Medi-Cal:

- \$8.4 million (\$2.6 million General Fund) to expand for three years the Screening, Brief Intervention, and Referral to Treatment (SBIRT) program currently used in Medi-Cal to include screening for the overuse of opioids and illicit drugs.
- One-time \$20 million General Fund to hire trained substance use disorder (SUD) and behavioral health peer navigators for emergency departments of acute care hospitals.
- \$8.6 million General Fund to extend for three years Medi-Cal eligibility from 60 days to one year for post-partum women diagnosed with a maternal mental health condition.

Mental Health Services Act (MHSA)

Establishing Youth Drop-In Centers

The budget includes \$15 million in one-time MHSA funds to establish local centers that will provide integrated youth behavioral health services. The centers are intended to support young people unwilling or hesitant to access behavioral health services in a traditional clinic setting. Centers may provide educational and vocational services along with mental health, physical health, substance use disorder (SUD), and social support services.

Mental Health Triage Grants

The budget includes \$40 million one-time and \$10 million ongoing MHSA funds for School-Mental Health Partnerships. Counties use these funds to place triage personnel in schools. The budget also includes \$10 million in one-time MHSA funds for student mental health at the higher education level.

The Investment in Mental Health Wellness Act of 2013, SB 82 (Committee on Budget and Fiscal Review, Chapter 34, Statutes of 2013), authorizes \$32 million annually in MHSA funds to add 600 triage personnel in select rural, urban, and suburban regions. The 2017-18 budget cut the amount available to \$20 million and many counties subsequently reduced the number of triage personnel, with school-based personnel being especially hard hit. Triage personnel provide intensive case management and linkage to services for individuals with mental health disorders at various points of access.

Workforce

The final budget includes multiple new investments for workforce development, including medical training and scholarships.

Mental Health Workforce Development

The budget appropriates \$46.3 million for mental health workforce development, \$2.7 million for psychiatry fellowships, and \$1 million to scholarships for former foster youth serving as mental health professionals in public clinics or provider shortage areas. These one-time General Fund expenditures target a growing health care workforce crisis in the state, with significant deficits in mental health providers.

UC Riverside, School of Medicine Expansion

The budget appropriates \$80 million in one-time General Fund for construction of a new medical school facility and \$25 million ongoing General Fund beginning in 2019-20 for operational support to expand enrollment at the medical school. California's health care workforce crisis has had a disproportionate impact on rural and remote areas, including the Inland Empire.

Workforce Education and Training (WET) Five-Year Plan

The budget appropriates \$35 million one-time General Fund and \$25 million one-time MHSF Funds for the 2020-25 WET Program Five-Year Plan, which supports and train individuals and providers working in mental health. The budget requires counties to match 33 percent of the state WET funds.

Proposition 64 (Prop 64) Substance Use Services for Youth

In 2016, the voters passed Prop 64 which legalized the sale of recreational marijuana and imposed a tax on these sales. The budget includes \$21.5 million from the Prop 64 Youth Education, Prevention, Early Intervention and Treatment Account (Youth Account) for competitive grants to develop and implement new youth programs focused on education, prevention and early intervention related to SUDs.

Background. Prop 64 mandates that some marijuana tax revenue be distributed for specific purposes and directs 60 percent of the remaining funds to the Youth Account, administered by DHCS. With these funds and in collaboration with the Department of Public Health and the California Department of Education (CDE), DHCS administers specified programs for youth.

Social Determinants of Health - Homelessness

In this year's budget, policymakers prioritized funding addressing homelessness. The budget includes a total of \$2.4 billion to address housing and homelessness. This funding includes \$650 million in one-time funds to help local jurisdictions fight homelessness and \$500 million in one-time funds to expand the Low-Income Housing Tax Credit program.

Background. The lack of stable housing impacts an individual's health and wellbeing. In 2005, a study found that people experiencing homelessness had an average life expectancy between 42

and 52 years, much less than the national average life expectancy of almost 80 years at the time.² Homeless Alameda County residents in 2017 shared how homelessness impacts their health by self-reporting health outcomes with 41 percent experiencing psychiatric or emotional conditions, 36 percent dealing with chronic health issues, and 27 percent living with a physical disability, among other conditions.³

¹ Covered California, [AB 1810 Affordability Workgroup California State Subsidy Program Overview](#), June 21, 2019.

² O'Connell, James J., [Premature Mortality in Homeless Populations: A Review of the Literature](#), December 2005.

³ Applied Survey Research, [Alameda County Homeless Census and Survey](#), February 1, 2018.

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Early 2019 Effectuated Enrollment Snapshot

Aug 12, 2019 | Affordable Care Act, Eligibility & enrollment

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Early 2019 Effectuated Enrollment Snapshot

This report provides effectuated enrollment, premium, and advance payments of the premium tax credit (APTC) data, for the Federally-facilitated and State-based Exchanges (“the Exchanges”) for February 2019 and for the 2018 plan year.

As of March 15, 2019, 10.6 million consumers had effectuated coverage through the Exchanges for February 2019, meaning that they selected a plan, paid their first month’s premium, if applicable, and had coverage in February 2019. This number represents approximately 92 percent of consumers who made plan selections during the 2019 Open Enrollment Period (11.4 million).^[1] Total effectuated enrollment for February 2019 declined less than one percent from February 2018.^[2]

The average total monthly premium for Exchange enrollees in February 2019 was \$594.17, a decrease of one percent from the February 2018 average premium of \$597.20. Approximately 9.3 million, or 87 percent of Exchange enrollees in February 2019 received APTC, consistent with the percentage of enrollees who received APTC in February 2018. The average monthly amount of APTC per enrollee

receiving APTC also fell by approximately one percent from February 2018, to \$514.01.

The numbers reported today may be revised in future months as additional data on new effectuations, terminations, and cancellations become available. Later this year, CMS intends to publish effectuated enrollment data for the first six months of 2019, which will include updated February 2019 enrollment data.

Background Information

The primary sources for the effectuated enrollment snapshot are payment and enrollment data. Effectuated enrollment for February 2019 is the total number of individuals who had an active policy in February 2019 and who paid their premium, if applicable, (thus effectuating their coverage) as of March 15, 2019. These data include effectuated enrollment from both the Federally-facilitated and State-based Exchanges.

APTC enrollment is the total number of individuals who had an active policy in February 2019, who paid their premium, if applicable, (thus effectuating their coverage), and who received an APTC. APTC is generally available if a consumer's household income is between 100 and 400 percent of the federal poverty level, and certain other criteria are met. A consumer was defined as receiving an APTC if the applied APTC amount was greater than \$0; otherwise, a consumer was classified as not receiving APTC.

CSR enrollment is the total number of individuals who had an active policy in February 2019, who paid their premium, if applicable, (thus effectuating their coverage), and received cost-sharing reductions (CSRs). A consumer is generally eligible for CSR if the individual is eligible for APTC, has a household income between 100 percent and 250 percent of the federal poverty level, and is enrolled in a health plan from the silver plan category. American Indians and Alaskan Natives are eligible for CSRs under different criteria.

To see a breakdown of the data by state, click here:

<https://www.cms.gov/sites/drupal/files/2019-08/08-12-2019%20TABLE%20Early-2019-2018-Average-Effectuated-Enrollment.pdf>

This communication was printed, published, or produced and disseminated at U.S. taxpayer expense.

[1] Health Insurance Exchanges 2019 Open Enrollment Report, available at: <https://www.cms.gov/newsroom/fact-sheets/health-insurance-exchanges-2019-open-enrollment-report>.

[2] February 2018 effectuated enrollment and premium data in this section of the report are as of March 15, 2018. Complete February 2018 effectuated enrollment data are available at: <https://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Marketplaces/Downloads/2018-07-02-Trends-Report-1.pdf>.

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Trends in Subsidized and Unsubsidized Enrollment August 12, 2019

Key Findings

This report provides data on individual health insurance market enrollment trends for people who purchase health insurance with and without advanced payments of the premium tax credit (APTC) subsidies.

- During two successive years of declining enrollment from 2016 to 2018, unsubsidized enrollment declined by 2.5 million people, representing a 40 percent drop nationally. At the state level, the percent change in unsubsidized enrollment over this period ranged from a 0.4 percent drop in Rhode Island to a 91 percent drop in Iowa.
- The most recent year of enrollment data shows average monthly enrollment across the entire individual market decreased by 7 percent nationally between 2017 and 2018 at the same time premiums increased by 26 percent.
- The decrease in enrollment between 2017 and 2018 occurred entirely among people who did not receive APTC subsidies. Unsubsidized enrollment declined by 24 percent, compared to a 4 percent increase in APTC subsidized enrollment.
- Since 2014, average monthly enrollment in the subsidized portion of the market has grown substantially larger than in the unsubsidized market. The subsidized portion of the market was 122 percent larger than the unsubsidized portion in 2018, up from 61 percent larger in 2017.
- Reviewing state-level data shows that declining enrollment trends began from 2015 to 2016 for 10 states. Declining enrollment expanded to 44 states from 2016 to 2017, and 43 states continued to experience declining enrollment from 2017 to 2018.
- Declining enrollment was larger and more widespread among the unsubsidized portion of state markets. From 2015 to 2016, unsubsidized enrollment declined in 23 states. Declining enrollment expanded to 43 states from 2016 to 2017 and then expanded to 47 states from 2017 to 2018. From 2017 to 2018, nine states lost over 40 percent of their unsubsidized enrollment.

Introduction

This report provides data on enrollment trends for people who purchase on- and off-Exchange individual market health insurance plans, both with and without federal advanced payments of the premium tax credit (APTC) subsidies. These data are based on an analysis of individual market plans that participate in the risk adjustment program established under section 1343 of the Patient Protection and Affordable Care Act (PPACA). The data provided in this report include state-specific, average monthly enrollment covering plan years 2014 to 2018. Over that period, average monthly enrollment peaked in 2016, reaching 14.5 million. In 2017, enrollment declined by 10 percent, followed by another decline of 7 percent in 2018. Enrollment among the unsubsidized, who do not receive APTC subsidies, also saw a precipitous decline of 24 percent from 2017 to 2018, compared to an increase of 4 percent in APTC subsidized enrollment. From its peak in 2016 to 2018, unsubsidized enrollment declined by 2.5 million people, a 40 percent drop nationwide. Over this two-year period, unsubsidized enrollment declined by more than 70 percent in Arizona, Georgia, Iowa, Nebraska, Oklahoma, and Tennessee.

Data and Methodology

The enrollment trends in this report cover individual health insurance market plans that participate in the HHS-operated risk adjustment program. These include individual health insurance market plans sold on- and off-Exchange, but exclude grandfathered plans, transitional plans, excepted benefit plans, and student health insurance plans.¹ The analysis excludes data on plans from Massachusetts and Vermont, because both states have merged their individual and small group markets for purposes of the risk adjustment program.²

To derive enrollment trends for people who purchase coverage with and without APTC subsidies, this report uses data from the risk adjustment program and Exchange effectuated enrollment data. The risk adjustment program provides data on the total enrolled member months in all risk adjustment covered plans. Enrolled member months are the total number of months during the plan year for all members enrolled in a health plan.³ Effectuated Exchange enrollment data provides comparable enrollment data for people enrolled in coverage with APTC subsidies. Non-APTC enrollment, referred to as unsubsidized enrollment in this report, is derived by subtracting APTC subsidized enrollment from enrollment in all risk adjustment covered plans. Total enrolled member months is divided by 12 to establish the average monthly enrollment, or the average number of people enrolled during any given month.

Note that state-level enrollment can be strongly impacted by changes in state Medicaid and Basic Health Programs. State actions to expand Medicaid eligibility to 138 percent of the federal poverty level (or make available a Basic Health Plan) can substantially reduce the number of

¹ See the definition for “risk adjustment covered plan” at 45 C.F.R. § 153.20.

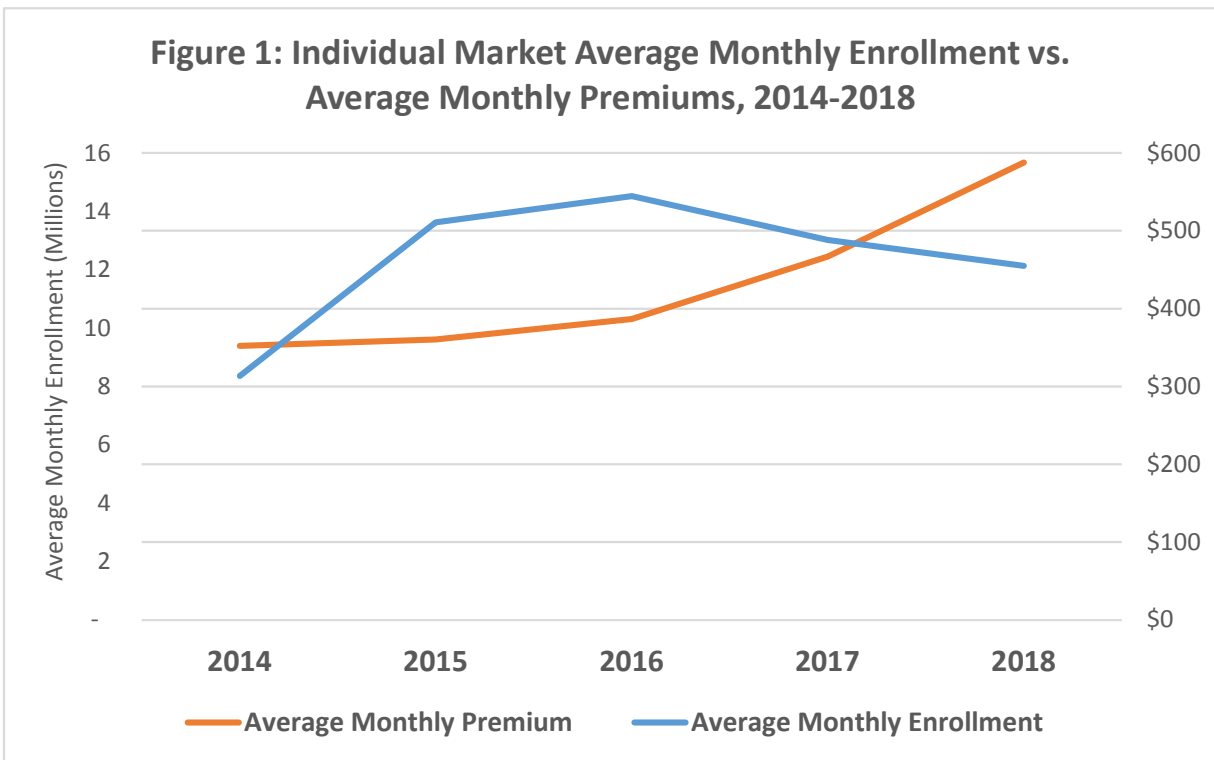
² https://www.regtap.info/uploads/library/RA_GuidanceMergedMarkets2017_030118_5CR_030118.pdf

³ Note that for purposes of comparison with Exchange data, enrolled member months used for this analysis differ slightly from the billable member months used for risk adjustment and for other reporting on the risk adjustment program.

people enrolling *with* APTCs from one year to the next. In addition, people who enroll in an Exchange *without* APTCs can include people who enroll through Medicaid premium support programs.⁴ Thus, Medicaid expansion through premium support could increase enrollment for people without APTCs.

National Enrollment Trends

When APTCs first became available in 2014, average monthly enrollment in the individual market was about 8.4 million members, of which 4.6 million enrolled with APTC subsidies and 3.7 million enrolled without APTCs. Enrollment rose by 63 percent in 2015 to 13.6 million members, and rose another 7 percent in 2016 to 14.5 million members. However, this trend reversed from 2016 to 2017, when enrollment declined by 10 percent. Enrollment declined another 7 percent from 2017 to 2018. As Figure 1 shows, the decline in enrollment in 2017 and 2018 is occurring at the same time as sharp increases in average monthly premiums. In 2018, average monthly premiums increased by 26 percent, following a 21 percent increase in 2017 and a 7 percent increase in 2016.

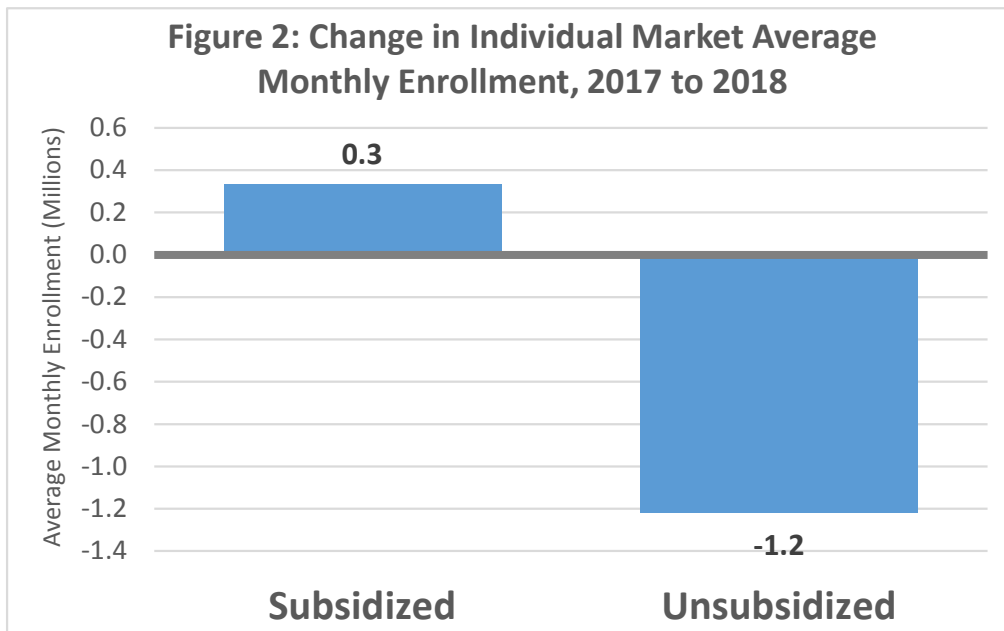


Source: 2014-2018 Risk Adjustment Data

From 2016 to 2017, enrollment declined among both the subsidized and the unsubsidized, with the unsubsidized representing 85 percent of the decline in enrollment. For 2018, the unsubsidized represent the entire drop in enrollment and is offset by a small increase in

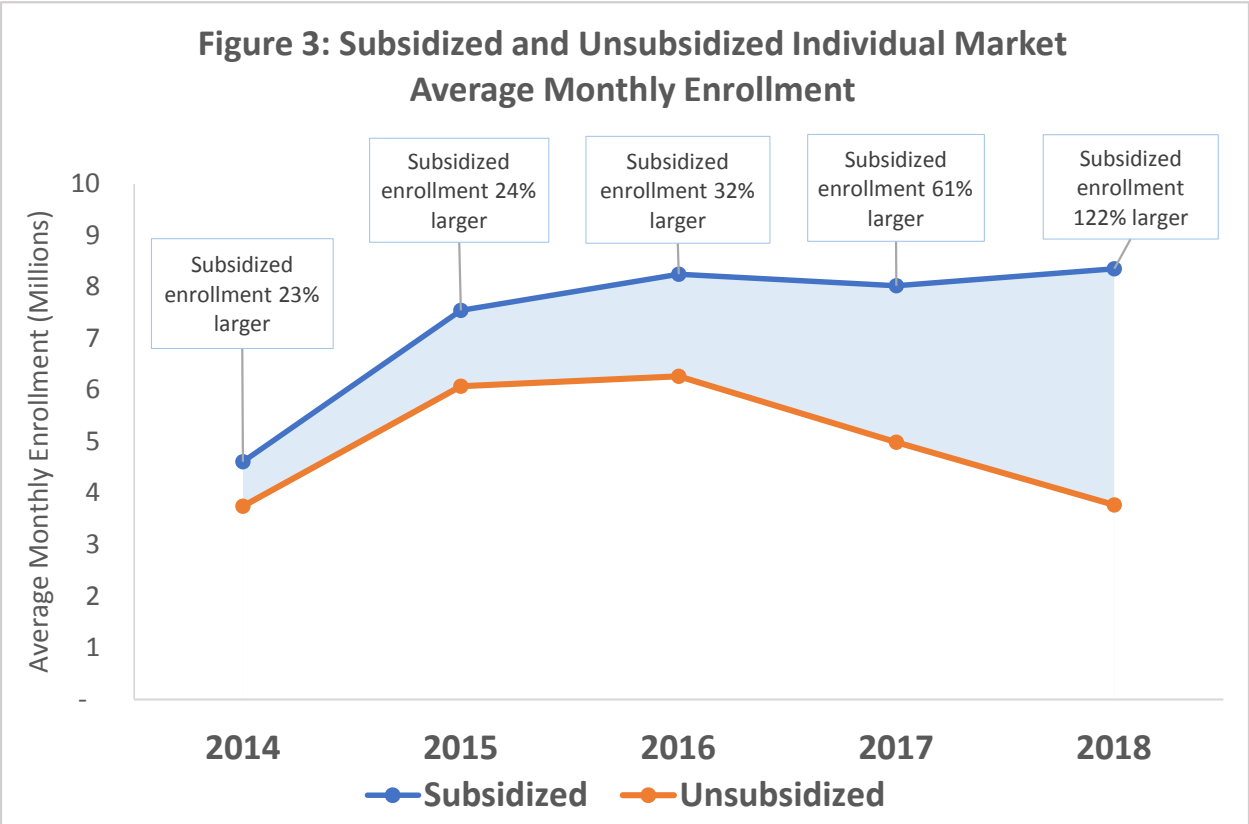
⁴ Arkansas, Iowa, and New Hampshire have all provided Medicaid premium support at some point during the period reported.

subsidized enrollment. In 2018, as shown in Figure 2, average monthly unsubsidized enrollment declined by 1.2 million (24 percent) compared to an increase in subsidized enrollment of 330,000 (4 percent).



Source: 2017-2018 Risk Adjustment Data and 2017-2018 Exchange Effectuated Enrollment and Payment Data

The gap between subsidized and unsubsidized average monthly enrollment in the individual market has grown larger since 2014. The larger decrease in unsubsidized enrollment and the slight increase in subsidized enrollment between 2017 and 2018 substantially increased this trend. Figure 3 shows the enrollment trend in the subsidized and unsubsidized portion of the markets between 2014 and 2018. The shaded area shows that the APTC subsidized market has been growing larger relative to the non-APTC unsubsidized market between 2014 and 2018. In 2014, the subsidized portion of the market was 23 percent larger than the unsubsidized portion, a difference that has grown markedly since. In 2018, the subsidized enrollment was more than double the unsubsidized enrollment.



Source: 2014-2018 Risk Adjustment Data and 2014-2018 Exchange Effectuated Enrollment and Payment Data

State-Level Enrollment Trends

At the state level, there is a continuing trend of declining enrollment across most states. While every state experienced growth in average monthly enrollment between 2014 and 2015, ten states began to see declines from 2015 to 2016, including a 17.6 percent decline in Alaska and a 13.5 percent decline in Minnesota. By 2017, the number of states experiencing declining individual market enrollment grew to 44, and in 2018, 43 states continued to experience declining enrollment.

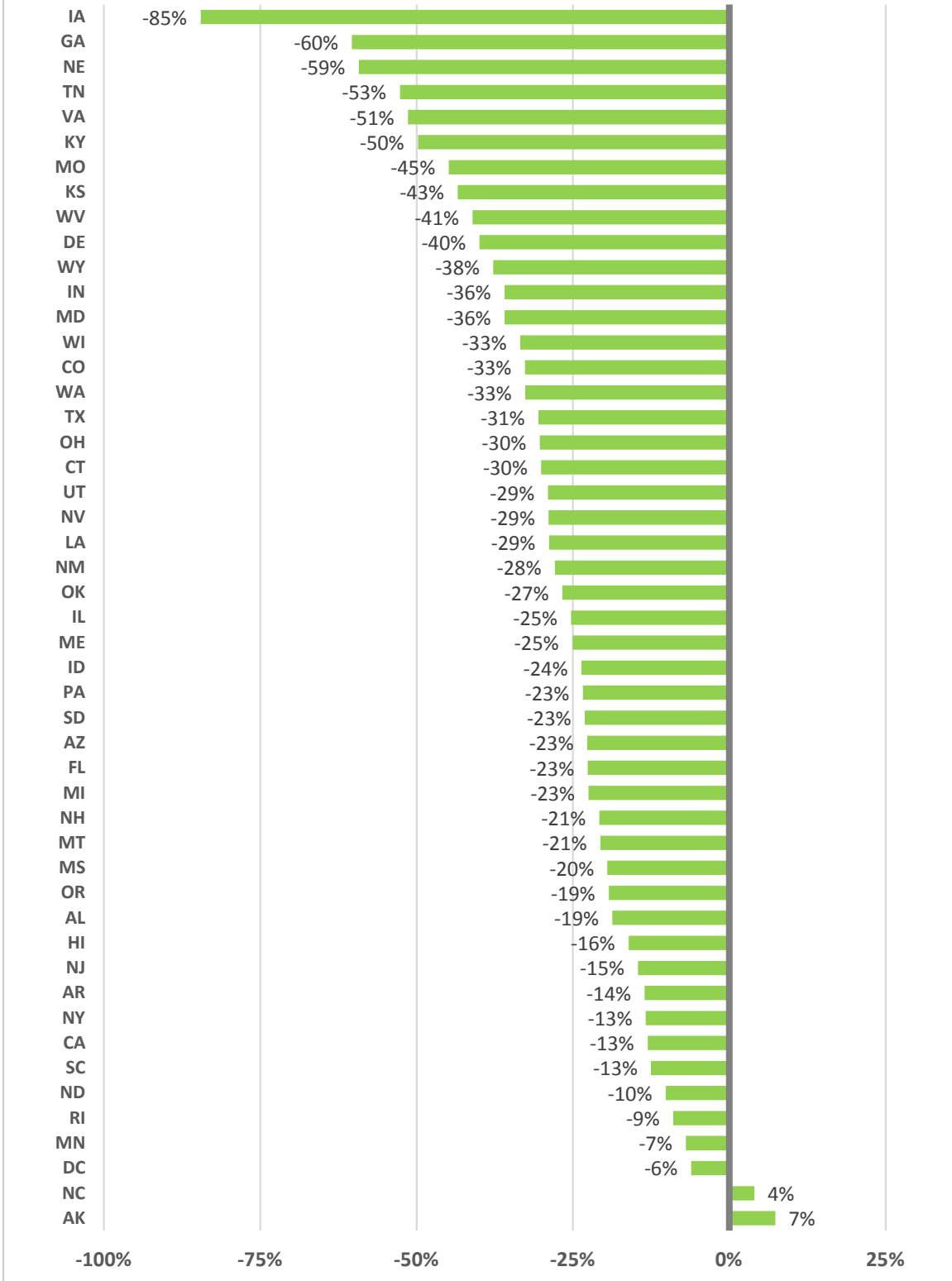
Declining enrollment between 2015 and 2016 was more widespread in the unsubsidized portion of state markets. Over that period, 23 states experienced a decline in unsubsidized enrollment, with 10 states experiencing unsubsidized enrollment percentage declines in the double-digits. From 2016 to 2017, declines in unsubsidized enrollment expanded to 43 states, 38 with double-digit decreases. The five states experiencing the largest declines in unsubsidized enrollment from 2016 to 2017 included Arizona (-73 percent), Oklahoma (-60 percent), Minnesota (-53 percent), Tennessee (-49 percent), and Nebraska (-47 percent).

Figure 4 provides a state-by-state look at unsubsidized average monthly enrollment changes from 2017 to 2018. During this period, the number of states with declining enrollment in the unsubsidized market grew to 47, with nine states losing over 40 percent of their unsubsidized enrollment. Changes in unsubsidized enrollment ranged from a 7 percent gain in Alaska to an 85

percent decline in Iowa. The five states experiencing the largest declines include Iowa (-85 percent), Georgia (-60 percent), Nebraska (-59 percent), Tennessee (-53 percent) and Virginia (-51 percent).

Two successive years of declining enrollment from 2016 to 2018 resulted in a 40 percent drop in unsubsidized enrollment nationally, which represents a decline from 6.3 million to 3.8 million average member months. During this two-year period, some states experienced declines that were far more substantial. At the extreme, unsubsidized enrollment dropped by 91 percent between 2016 and 2018 in Iowa. Over this period, in addition to Iowa, unsubsidized enrollment declined by more than 70 percent in Arizona (-79 percent), Nebraska (-78 percent), Tennessee (-76 percent), Georgia (-71 percent), and Oklahoma (-71 percent).

Figure 4: Percent Change in Unsubsidized Enrollment, 2017 to 2018



Source: 2014-2018 Risk Adjustment Data and 2014-2018 Enrollment and Payment Data

*The analysis excludes data on plans from Massachusetts and Vermont, because both states have merged their individual and small group markets for purposes of the risk adjustment program.

Individual Health Insurance Market APTC Subsidized and Unsubsidized Average Monthly Enrollment, 2014 to 2018										
State	2014		2015		2016		2017		2018	
	Subsidized	Unsubsidized	Subsidized	Unsubsidized	Subsidized	Unsubsidized	Subsidized	Unsubsidized	Subsidized	Unsubsidized
AK	8,283	4,461	14,451	6,906	14,065	3,531	13,442	2,456	14,125	2,636
AL	62,238	93,722	115,213	92,683	132,648	77,700	139,996	50,681	138,233	41,202
AR	27,869	145,728	44,139	228,450	51,509	282,235	46,711	291,884	49,431	252,345
AZ	62,472	60,181	109,874	116,920	119,755	115,523	119,467	31,571	119,495	24,396
CA	864,652	768,764	1,104,101	954,032	1,141,457	1,013,307	1,129,187	971,296	1,196,566	844,535
CO	55,925	83,553	61,935	151,359	85,334	188,231	91,335	152,930	100,869	102,960
CT	47,624	48,342	67,844	97,086	73,501	99,867	70,071	75,502	74,045	52,785
DC	961	6,871	1,287	13,031	1,128	16,004	886	16,937	966	15,904
DE	8,151	7,173	16,785	16,105	19,330	15,268	18,028	10,789	17,032	6,477
FL	603,303	173,265	1,094,336	324,165	1,240,296	361,558	1,229,240	314,501	1,371,754	243,292
GA	185,250	85,273	340,487	184,319	363,833	213,915	338,217	158,333	330,535	62,773
HI	2,481	17,101	11,274	23,777	10,886	22,968	13,583	19,584	13,729	16,433
IA	17,221	40,337	31,115	51,501	38,778	43,539	37,011	26,706	37,164	4,129
ID	49,484	27,396	71,647	40,525	77,665	41,541	73,142	33,022	76,425	25,203
IL	118,752	154,711	211,553	274,792	231,892	271,089	230,265	165,646	240,510	123,730
IN	80,848	31,387	134,373	70,485	124,333	80,283	101,588	66,031	92,956	42,294
KS	32,811	26,507	61,244	62,093	68,798	62,054	70,441	41,765	71,108	23,632
KY	45,374	27,471	59,760	45,503	57,877	48,569	54,449	39,264	58,204	19,714
LA	55,125	34,956	112,975	63,476	141,299	67,753	90,846	42,942	76,250	30,563
MD	39,900	64,001	77,739	163,908	95,084	160,476	98,261	128,946	110,632	82,595
ME	30,920	6,801	56,845	15,817	63,402	18,756	57,984	19,913	57,883	14,918
MI	145,220	102,939	239,332	155,916	238,431	172,593	215,804	157,664	210,416	122,135
MN	13,811	223,772	25,292	252,637	42,631	197,681	61,932	92,539	62,832	86,111
MO	92,598	41,525	172,128	83,155	199,238	89,722	175,662	61,527	174,062	33,921
MS	35,858	13,404	62,735	26,765	60,959	30,138	57,172	23,691	64,178	19,070
MT	24,500	32,469	38,138	42,323	39,605	35,995	38,625	22,099	35,760	17,542
NC	228,142	76,311	386,157	122,230	426,753	115,214	407,524	76,602	406,670	79,664
ND	6,976	13,588	10,004	29,494	16,012	26,318	16,399	25,221	16,893	22,660
NE	28,029	31,549	53,228	42,080	66,354	41,257	66,602	21,978	73,513	8,956
NH	21,958	11,960	27,370	23,089	30,451	65,667	27,844	69,095	30,065	54,735
NJ	95,269	82,490	165,220	137,104	186,444	150,161	185,258	157,645	178,312	134,611
NM	16,769	18,347	29,181	47,476	29,731	42,209	31,066	34,492	33,803	24,874
NV	22,754	26,257	45,984	69,971	63,748	66,549	59,514	56,091	62,054	39,870
NY	184,288	155,325	244,393	229,000	112,922	246,104	120,407	216,111	133,154	187,229
OH	89,201	60,809	143,087	106,060	157,136	119,429	145,792	104,961	143,676	73,131
OK	38,062	29,806	78,783	81,673	103,199	65,769	109,723	26,281	120,156	19,263
OR	46,555	98,818	68,098	136,180	87,436	137,234	95,919	114,465	98,489	92,410

Individual Health Insurance Market APTC Subsidized and Unsubsidized Average Monthly Enrollment, 2014 to 2018										
State	2014		2015		2016		2017		2018	
	Subsidized	Unsubsidized	Subsidized	Unsubsidized	Subsidized	Unsubsidized	Subsidized	Unsubsidized	Subsidized	Unsubsidized
PA	194,532	144,563	290,771	295,186	286,907	284,844	289,737	204,355	299,649	156,498
RI	20,334	14,477	25,783	15,512	27,652	17,970	23,376	19,657	26,394	17,892
SC	66,374	23,594	135,801	49,536	160,746	56,115	157,420	44,497	162,859	38,926
SD	8,876	12,905	15,728	23,660	20,671	20,876	23,796	12,226	24,684	9,399
TN	79,926	55,167	140,103	110,012	178,488	118,944	167,618	60,367	175,560	28,569
TX	381,158	213,528	698,768	491,960	804,423	446,661	778,233	276,431	807,405	192,075
UT	38,951	48,140	103,938	60,965	135,947	64,127	143,625	54,376	156,607	38,605
VA	121,241	61,955	246,856	158,010	286,524	157,547	281,606	136,781	277,453	66,466
WA	99,453	193,648	114,164	197,260	113,719	199,058	112,775	181,823	128,435	122,448
WI	92,181	39,090	151,723	60,601	174,641	72,071	166,310	62,992	164,999	41,935
WV	12,272	8,931	23,113	20,327	26,063	17,143	22,799	10,676	19,390	6,294
WY	8,686	5,004	14,901	7,489	19,138	7,137	19,273	7,054	20,869	4,392
TOTAL	4,613,617	3,748,369	7,549,756	6,072,605	8,248,839	6,268,703	8,025,959	4,992,392	8,356,247	3,772,200

Source: 2014-2018 Risk Adjustment Data and 2014-2018 Exchange Effectuated Enrollment and Payment Data

*The analysis excludes data on plans from Massachusetts and Vermont, because both states have merged their individual and small group markets for purposes of the risk adjustment program.

Ensuring the Future of the Affordable Care Act on the Health Insurance Marketplaces

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Abstract

Context: A decade after passage, a majority of Americans now support the Affordable Care Act (ACA), and Republican efforts to repeal it outright have failed. This article investigates whether the policy itself, through its beneficiaries, changed public opinion and sowed the seeds of its defense.

Methods: This study used an individual-level panel design to estimate the causal effect of implementation on opinion and electoral outcomes for ACA beneficiaries during the first year of open enrollment.

Findings: Individuals who enrolled in plans on the health insurance marketplaces had significantly more positive opinions of the ACA after implementation. Previously uninsured Medicaid enrollees also reported improved opinions, though results were not statistically significant. In contrast, uninsured individuals residing in states that did not expand Medicaid became significantly less supportive of the law. Changes in opinion persisted up to the 2014 midterm elections, and there is evidence that individuals with marketplace insurance became more supportive of Democratic candidates, although not more likely to vote for them.

Conclusions: Public support for the ACA was enhanced when its beneficiaries became more positive toward it during implementation. Recent changes to key ACA provisions have the potential to undermine the law's effectiveness, potentially leading to political action as benefits slowly begin to disappear.

Keywords Affordable Care Act, individual-level panel data, public opinion, policy feedback

In an era of political polarization, partisanship is a primary determinant of American opinion on policy. Voters increasingly have policy preferences that are in line with their preferred party's positions across a broad range of issues (Abramowitz and Saunders 2008; Hare et al. 2015; Layman and

Journal of Health Politics, Policy and Law, Vol. 44, No. 4, August 2019
DOI 10.1215/03616878-7530813 © 2019 by Duke University Press

Carsey 2002; Layman, Carsey, and Menasce Horowitz 2006). The Affordable Care Act (ACA) is no exception; support for the law divides along party lines (Chattopadhyay 2017; Gelman, Lee, and Ghitza 2010; Jacobs and Mettler, 2016; Tesler 2012). Until recently, a bare majority of Americans consistently opposed the law (Fingerhut 2017). Only a fraction of Americans expect to benefit from the ACA (Chattopadhyay 2017). Republicans running on a platform to dismantle the ACA made gains in the 2014 and 2016 national elections, enabling them to secure the presidency and majorities in both chambers of Congress (Nyhan et al. 2012). Nevertheless, the 2017 Republican effort to repeal the ACA was unsuccessful.

This article provides a rare empirical test of whether policy, through implementation, can reshape partisan attitudes. Using longitudinal data from the American Life Panel (ALP), I followed the same individuals repeatedly over the first year of ACA implementation, from September 2013 until the 2014 midterm election. I observed whether individuals enrolled in health insurance and the type of insurance they obtained and then how this experience affected their opinion of the law and voting behavior in the subsequent midterm election. This rich panel data allowed me to estimate the causal effect of policy implementation on policy preferences and vote choice while controlling for previous ACA opinion.

Of primary interest are those who bought insurance on the marketplaces and enrolled in Medicaid between the start and end of the 2014 open enrollment period. Since the primary goal of the ACA was to increase the rates of insurance through the creation of the marketplaces and Medicaid expansion, I also consider how changes in attitudes for these groups depended on whether an individual was previously uninsured. In addition, the ACA implemented a small reduction in the prescription drug doughnut hole during the open enrollment period, which may have caused Medicare enrollees to become more favorable toward the law. There were no significant impacts to other insurance groups, so we should not expect attitudes to have changed for other insurance types during the open enrollment period.

Consistent with these predictions, I found that individuals who enrolled in plans on the health insurance marketplaces had significantly more positive opinions of the ACA by the end of the enrollment period than they did before enrollment began. To a lesser extent, the opinions of Medicare enrollees also significantly improved. Medicaid enrollees who were previously uninsured reported improved opinions, but this change was only statistically significant at the 10% level, possibly due to sample size. In contrast, individuals who resided in states that did not expand

Medicaid and failed to obtain insurance developed significantly more negative opinions of the ACA. No other defined insurance group stood to gain as these groups did, and none of these groups reported a significant change in ACA opinion. Changes in opinion persisted into August 2014, and there is evidence that individuals with marketplace insurance became more supportive of Democratic candidates in the 2014 midterm elections, although not more likely to vote for Democratic candidates.

ACA Benefit and Policy Preferences

The ACA represents the most significant change in health care policy in the past 40 years, enabling millions of Americans to obtain health insurance. The ACA provided a new source of health insurance with the creation of the ACA marketplaces (also called exchanges), and it reformed and extended other elements of the existing health insurance system. This article considers whether individuals who obtained benefits under the law changed their opinion of the law after receiving those benefits during the 2014 open enrollment period. I estimated the causal effect among individuals who gained insurance and insured individuals who also benefited from ACA implementation. Democrats were counting on attitudes toward the ACA, which were overall negative, improving once implementation began as individuals received new benefits under the law, an important indicator of the law's success.

Studies suggest that ACA beneficiaries have more positive views of the ACA compared to the general population (Jacobs and Mettler 2016; McCabe 2016). Cross-sectional data, however, cannot disentangle the effect of policy benefits on policy preferences from factors such as partisanship (Campbell 2012). Several studies have used creative designs that attempt to overcome this causal inference problem. Lerman and McCabe (2017) compared the attitudes of individuals just above the age of 65 to those just below and found that individuals just above the Medicare eligibility threshold had more favorable opinions of Medicare and the ACA before implementation. Medicare enrollees are one group that stood to benefit from ACA policy, so their positive attitudes may reflect anticipation of new benefits under the law. Using state-level panel data, Sances and Clinton (2017) found that high school graduates in expansion states and other groups that were likely to benefit from the law had marginally more favorable opinions of the ACA after implementation, although there was no difference in the overall population. Jacobs and Mettler (2016) confirmed that there did not appear to be a significant difference in ACA opinion over time between residents of Medicaid expansion and nonexpansion states.

Though rare, studies using individual-level panel data enable estimation of the change in opinion as a result of an event while controlling for preexisting opinion. In one such study, Lenz (2013) observed that individuals conform their own opinions on policies to those of their preferred party upon receiving new information about the party's position, once those policies become salient (often in response to a news event). In contrast, Milazzo, Adams, and Green (2012) found that British citizens update their party evaluations to align with their existing beliefs about the government's fundamental role in social services, industry, inflation and unemployment, and redistribution. Jacoby (2014) found these measures to be closely aligned with long-held ideological preferences, so it is not surprising that they are less resistant to elite persuasion.

Regarding the ACA, McCabe (2016) used panel data from the 2012 and 2014 waves of the Cooperative Congressional Elections Study and found that Republicans who became insured during this 2-year period, which covers the first year of implementation, had more favorable opinions of the law than did individuals insured in both waves. Most individuals who became insured during the 2-year time period gained insurance through Medicaid or with the support of federal subsidies to buy insurance on the ACA marketplaces, so increased support for the law among the newly insured is likely a result of the ACA benefits that many in this group received. McCabe also reported that individuals who lost insurance became more negative toward the ACA.

Jacobs and Mettler (2018) fielded an individual-level panel survey with three waves in 2010, 2012, and 2014 to assess the effects of ACA implementation on public opinion. They found that individuals without insurance in 2014, either because they lost their insurance during the 4-year period or remained uninsured, were less favorable of the ACA than in 2012. In addition, they found that individuals who gained insurance between 2010 and 2014 or who obtained 2014 coverage through a government program were more likely to believe that the ACA improved access to health insurance and medical care. However, they did not find that subsidies to buy insurance or prescription drug cost reductions increased overall favorability of the ACA among individuals who benefited from these policies.

The Jacobs and Mettler 2018 result contrasts with the finding of this study that individuals who enrolled in marketplace insurance, usually with support from subsidies, increased their support of the ACA in the period between the start and end of the 2013–14 open enrollment period. Differences in the panel designs and statistical models may explain the

difference in results, as well as differences in how the surveys define beneficiary groups. Jacobs and Mettler considered individuals who reported having benefited from “tax credits or other subsidies” stemming from the new health care law, while in this study I observed the type of insurance individuals obtained for 2014. Even though most individuals who purchased marketplace insurance benefited from the premium tax credit and cost-sharing subsidies, they may not have been aware that their insurance was made more affordable as a result of these benefits. In addition, those with Medicare or Medicaid insurance or young adults who obtained insurance through a parent’s employer (also subject to tax credits) may have reported having benefited from tax credits or other subsidies.

The study presented here builds on previous individual-level panel studies of ACA implementation in several ways. The data include direct measures of insurance status and insurance type, including measures for Medicaid, Medicare, and marketplace insurance, allowing for analysis of whether groups covered by insurance made available or enhanced by the ACA had changed opinions about the ACA as a result of implementation. In addition, the panel design encompasses a much tighter time frame around the first period of open enrollment under the ACA. In panel designs, the choice of time period embodies a trade-off between causal identification and the study of longer-term effects. The more closely the panel period encircles the policy change, the more convincingly one can attribute changes in public opinion and political behavior to specific policy effects and not to such characteristics as partisanship and economic circumstances. Both McCabe (2016) and Jacobs and Mettler (2018) had a 2-year lapse between panels, which requires stronger modeling assumptions to disentangle policy effects from partisan trends. However, the longer time span allowed these studies to assess a broader set of policy changes. My analysis provides a tight window around the first open enrollment period but misses the early phase-in of the prescription drug cost reductions and the requirement to extend employer coverage to young adults under age 26. Each study employed a different analysis design and definition of beneficiary groups and are complementary, together contributing to our understanding of the political impact of ACA implementation.

ACA Policy Changes Implemented in 2013–14: Impact on Insurance Types

Under certain conditions, individuals who personally benefit from a policy can discard partisan beliefs and form attitudes in line with their self-interest

(Carsey and Layman 2006; Page and Shapiro 2010). The government implemented several policies during the winter of 2013–14, the first period of open enrollment; the roll-out of the marketplaces and Medicaid expansion were arguably the most significant reforms. Some states opened online health insurance marketplaces, and the federal government opened a marketplace on behalf of the remaining states. These marketplaces guaranteed individuals without employer-provided health insurance access to individual policies with comprehensive coverage at group rates, often with the help of federal subsidies. Subsidies were provided at incomes up to 400% of the federal poverty line (\$45,960 for a single person and \$94,200 for a family of four in 2014), and the vast majority of marketplace enrollees qualified for a subsidy. Individuals in poor health could not be denied coverage in the marketplaces. In addition, the law provided additional federal funds to expand Medicaid coverage to individuals and families with incomes below 138% of the federal poverty level, although not all states accepted these additional funds.

These policies benefited the previously uninsured and the insured. An estimated 8.4 million nonelderly adults gained insurance in 2014, almost always through Medicaid expansion or plans individually purchased on the marketplaces (Skopec, Holahan, and Solleveld 2016). For the previously insured, the marketplaces provided individuals at risk of losing their coverage a guaranteed replacement. The individual market was reformed, offering greater coverage and/or reduced rates to some in this market. Medicaid expansion also reduced the risk of becoming uninsured among preexpansion Medicaid recipients. We should expect that individuals who obtained insurance on the marketplaces or through Medicaid to have more positive attitudes of the law, particularly if they were previously uninsured.

Sizable benefits may not change attitudes or behavior if beneficiaries are unaware of the benefits they receive and the government's role in providing the benefits. Mettler (2011) found that benefits distributed through the tax code or by private industry are less visible to beneficiaries than are direct service programs. In addition, expanding benefits in an existing program may have less effect on attitudes. Campbell (2003) argues that Medicare created a powerful and engaged voting bloc of elderly Americans dedicated to the preservation of this program. But subsequent changes to Medicare that expanded benefits did not lead to more positive attitudes (Morgan and Campbell 2011).

These examples suggest that we may expect Medicaid expansion to have a weaker effect on attitudes to the extent that incremental changes

to policies are less visible than newly created benefits. Many individuals already enrolled in Medicaid may not have realized that the ACA reduced their risk of losing eligibility in the future. Individuals who became eligible for Medicaid as a result of the new federal funds to expand the eligibility threshold may not have been aware that they benefited from the ACA. Turnover among Medicaid beneficiaries is high (Ku and Steinmetz 2013). Beneficiaries frequently gain and lose coverage and may not have attached responsibility to the ACA for the change in their eligibility status in 2014. If so, the effect of the ACA on attitudes should be smaller for individuals who became insured through Medicaid than for those who purchased insurance on the marketplace. In the nonexpansion states, it is unclear how attitudes toward the ACA among Medicaid enrollees and individuals who would have qualified for Medicaid expansion were affected by state decisions not to implement expansion.

I also consider how ACA attitudes changed over this period among enrollees in other types of health insurance plans, including Medicare and employer plans. The ACA enacted policies that affected other health insurance plans, but these policies had little effect during the period of open enrollment in 2013–14. Prior to the act, Medicare beneficiaries faced a “doughnut hole” in Part D drug coverage in which they paid 100% of the costs of drugs. Beginning in 2011, the act gradually reduced cost sharing in the doughnut hole to 25% by 2020. During the first open enrollment period, the only effect of this policy change was to reduce cost sharing for generic drugs from 79% to 72%. The ACA also mandated free preventive care in Medicare and employer plans, but this policy took effect earlier in 2011 and is captured by the preenrollment attitude variables in my analysis. Therefore, for the reasons explained above, we might expect at most weak effects of the incremental changes on attitudes for Medicare and no effects for employer plans.

The ACA imposed few costs on individuals during the initial enrollment period in 2013–14. The ACA’s employer health insurance mandate, originally scheduled to begin in 2014, was delayed until 2015 and again for midsize employers until 2016. This provision requires firms with 50 or more full-time employees to provide a minimum level of health insurance coverage for their employees or pay a fine. Minimum coverage requirements also affected the insurance for individual coverage. In general, the opening of the marketplaces fundamentally changed the market for individually purchased insurance and the types of plans offered. As a result, individuals with individual coverage before 2014 may not have been able to renew their previous coverage. In addition, some individuals who were

previously uninsured may have preferred to remain uninsured rather than pay for health insurance. The ACA's individual insurance mandate (repealed in 2017), which required individuals to obtain a minimum level of health insurance, initially carried a tax penalty of \$95 per adult and \$47.50 per child (up to \$285 for a family), or 1% of household income above the 2014 tax return filing threshold, whichever is greater. The penalty was not due until 2014 taxes were filed in 2015. However, many individuals who did not obtain insurance coverage in 2014 did not face a penalty because the law had an exemption for low-income individuals. Regardless, public discussion of the mandates during the open enrollment period may have caused those most at risk for becoming uninsured to anticipate future costs and have lower opinions of the ACA. Jacobs and Mettler (2018) found that individuals who reported receiving subsidies to help pay for insurance were more likely to believe that the new health care law increased their tax burden.

In summary, the law's benefits in the first period of open enrollment were concentrated on two insurance types: marketplace-purchased health insurance plans and Medicaid. Medicare enrollees experienced a modest benefit. Other insurance types did not receive new benefits or pay significant costs during the first enrollment year, nor did most perceive any benefits or costs aside from a fear that they might face higher health costs in the future. If such a fear existed prior to the start of open enrollment, it would factor into prior attitudes. Since premium contributions for Medicare Part B were unchanged in 2013 and those for employer health plans increased at a rate comparable to previous years (Claxton et al. 2015), there was no reason to suggest that such fears would heighten during the period of open enrollment. Thus, we should not expect cost fears to impact ACA attitudes during the open enrollment period.

Data

The data came from the American Life Panel (ALP), an ongoing panel that started in January 2006 and is representative of the US adult population. Documentation for the ALP can be found in Pollard and Baird (2017). Its probability-based sample consists of 4,200 respondents recruited from several sources between 2002 and 2012: (a) respondents to the University of Michigan Surveys of Consumers, (b) participants in a Stanford University Abt Associates panel study with a representative probability sample, and (c) a vulnerable-population sample selected by RAND using address lists in Zip codes with high percentages of Latino/as or low-income households. Initial participation rates were 30% for the Michigan

cohort, 46% for the Stanford sample, and 42% for the vulnerable-population sample. Year-to-year retention rates among participants were high: of those who participated in a survey in 2013, 94% participated again in 2014. Completion rates for individual surveys vary considerably depending on the sample and topic. On average in 2015, participants completed 62% of the surveys they were asked to complete.

The panel includes several series of themed surveys. I primarily drew on the ACA series, which began in August 2013. I constructed a panel consisting of all individuals who participated in the baseline survey conducted from September 16 to October 1 2013, and who appeared in at least one of the monthly surveys conducted over the open enrollment period through May 2014 and again in August 2014. With this setup, I could observe respondent opinions of the ACA in the month before the start of the open enrollment period, the type of insurance they enrolled in during open enrollment, and their opinion of the ACA after enrolling or after open enrollment ended. The ALP also collected information on voting in the November 2014 midterm election. ALP estimates of enrollment decisions and 2012 election outcomes match well to other sources (Carman, Eibner, and Paddock 2015; Gutsche et al. 2014).

Insurance Coverage, 2014

The first postenrollment surveys were sent to all participants in October and November 2013, and follow-up surveys were sent each month from December 2013 through May 2014 to all participants. The surveys asked respondents about their insurance coverage for 2014. They could select one or more items from a list of thirteen different types of insurance. For individuals who had already reported insurance coverage in a previous wave, the December through May surveys asked participants to confirm their previous choice. I collected the final insurance type(s) each respondent selected, as well as the month in which the individual's final insurance type was recorded. Individuals were categorized as "uninsured" if they indicated that they did not have insurance or selected "no coverage of any type" as their type of insurance coverage.

For analysis purposes, I condensed the 13 insurance types into 9 categories to account for major overlaps in coverage groups, though the results are substantively the same regardless of whether I used the original 13 or condensed 9 categories. Table 1 lists the insurance types as they appear in the survey and my coding for the analysis.

Table 1 Insurance Type Coding

Variable	Insurance type (as appears in the ALP survey)
Employer	1. Insurance through my or my spouse's/partner's employer/union 2. Insurance through my parents' employer/union 3. Retiree insurance through my or my spouse's/partner's former employer/union
Marketplace	4. Insurance through your state's or the federal health insurance exchange or marketplace
Self-pay	5. Self-pay insurance or private health insurance not through your state's or the federal health insurance exchange or marketplace
Medicare	6. Medicare, which is primarily for persons over 65 7. Medi-Gap, which may be identified on the front of your policy as "Medicare Supplemental Insurance"
Medicaid	8. Medicaid, also known as state medical assistance, which is for some persons with limited income and resources
Military	9. Military health care (TRICARE/VA/CHAMP-VA)
Other government	10. State-sponsored health insurance 11. Other government program
Other	12. Other
Uninsured	13. No coverage of any type

Note: The names of the Medicaid programs vary by state, so the surveys provided the state Medicaid name in addition to the federal name.

Apart from the marketplaces, insurance enrollment occurred early in the ACA enrollment period. November is the median month that individuals without marketplace insurance report having enrolled for 2014. Individuals who purchased insurance on the marketplaces most often report having obtained insurance in April. The delay reflects the fact that many marketplaces experienced technical difficulty during the early enrollment months, as well as the fact that individuals were signing up for the first time.

Insurance Status, 2013

The ACA series in the ALP fielded two preenrollment period surveys that collected information about respondents' previous insurance histories. I further augmented this information with data from an early October survey on the effects of the financial crises, another ongoing ALP series. It was necessary to draw from all three surveys in order to collect 2013 insurance information for the maximum number of individuals in the sample.

ACA Opinion

The ALP contained the following three ACA opinion questions in each of the monthly ACA-series surveys from September 2013 through May 2014, and again in August 2014:

1. As you may know, a health reform bill (the Affordable Care Act, or Obamacare) will take effect in 2014. Given what you know about the reform law, do you have a generally favorable or unfavorable opinion of it?
2. Do you think you and your family will be better or worse off under the reform law or don't know?
3. Do you think the country as a whole will be better or worse off under the reform law or don't know?

Respondents could select very favorable, somewhat favorable, somewhat unfavorable, very unfavorable, or don't know for the first question. The second and third questions allowed respondents to select better off, worse off, not much difference, or don't know for their responses. I recoded all variables into categorical variables centered at zero. "Don't know" was coded as zero, or neutral, rather than dropped.¹

Key variables in the analysis are pre- and postenrollment ACA opinion and 2014 insurance coverage type. Preenrollment ACA opinion came from the baseline September survey. Postenrollment ACA opinion came from the last survey in which the panelists participated during the postenrollment period. Although the possible dates for this last survey could range from November through May, the April or May surveys included over 70% of all individuals in each insurance type.

Political Variables

Data on preenrollment political variables came from several surveys fielded around the 2012 presidential election. Again, drawing data from multiple surveys ensured that the analysis included preenrollment data for as many panelists as possible. Information on party ID came from the ALP's Kimball pre- and postelection surveys and global warming survey, which asked about Democratic or Republican political affiliation and leaning.

1. To test whether the results are invariant to this coding scheme, I reran all the analyses presented in this article after replacing pre- and postenrollment ACA opinion variables with an indicator for positive support of the law. In addition, I included controls for whether an individual responded "don't know" in the preenrollment period to each of the three ACA measures. The results of the sensitivity analyses are consistent with those presented here.

I combined these variables to create an indicator for whether or not an individual identifies or leans Democrat. Variables on vote choice and candidate choice were combined to create a variable indicating support for Obama in the presidential election over the other candidates. This information, along with reported voter turnout in the 2012 presidential election, was drawn from the three election surveys mentioned above, as well as another postelection survey. These surveys were fielded between October 2012 and May 2013.

I drew postenrollment political variables from the midterm election series conducted between October 10 and November 13, 2014. In surveys leading up to election day, respondents were asked to report the percent chance that they would support the Democratic, Republican, or Independent candidate in the House elections. This type of question has been shown to more accurately predict election outcomes than questions that simply ask for the respondent's top choice (Delavande and Manski 2010). The final survey of the series, conducted after the election, asked respondents who voted which candidate they voted for. I used their reported vote choice to create an indicator of vote for the Democratic candidate. I also used the party identification questions from this series to create a postenrollment Democratic Party identification dummy.

Other Variables

The ALP collects standard socioeconomic information from participants on a quarterly basis. In addition to insurance coverage and ACA opinion, the ACA series also included questions that changed each month about respondents' expectations of the law's impact on health care access and cost and the likelihood of having to pay a tax penalty.

Methods

Many factors affect individuals' attitudes toward the ACA, and these factors are also associated with whether they were previously insured and which type of insurance, if any, they obtained in 2014. Figure 1 shows average ACA opinion in the month prior to open enrollment by postenrollment insurance type. Individuals who were insured in 2014 through Medicaid or marketplaces were most positive about the law on all three questions in the preenrollment period. These individuals had lower income, were less likely to be previously insured, and were more likely to be Democrat. In comparison, higher-income, more Republican groups

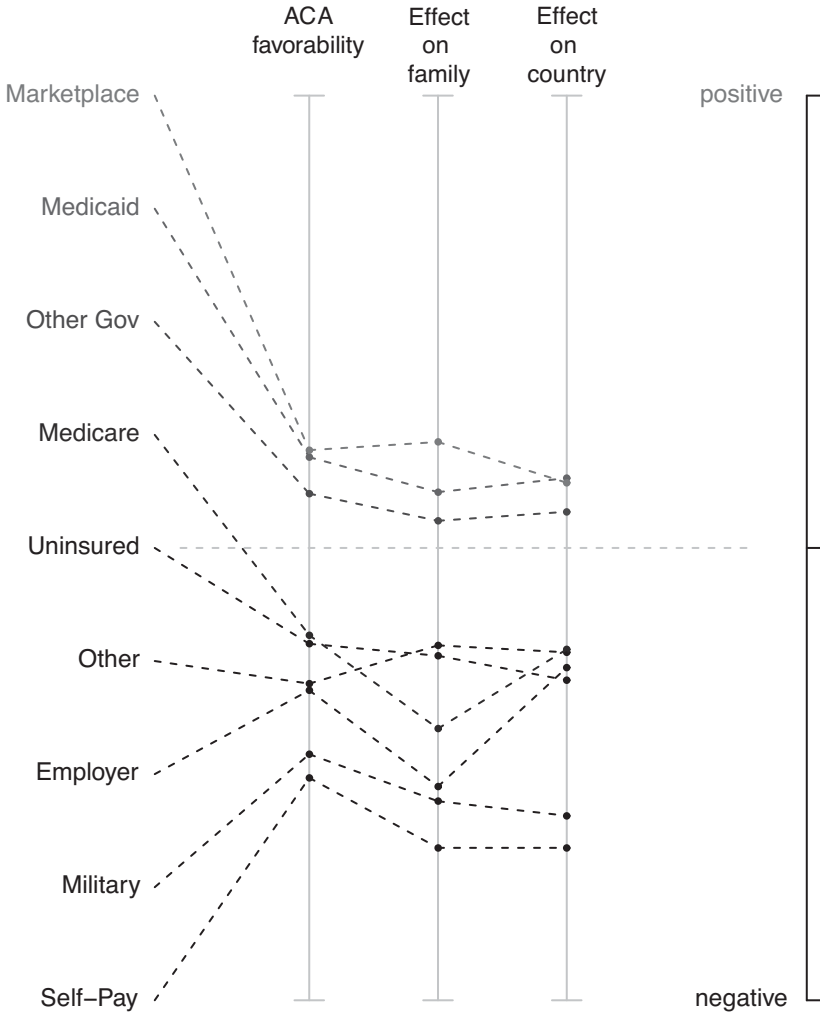


Figure 1 Preenrollment Opinion on Three Measures of ACA Support, by Postenrollment Insurance Type.

such as those enrolled in self-pay insurance or a military health care plan were less favorable to the law before the enrollment period.

I used an individual-level panel design to control for other factors, such as political variables, that affect ACA opinion and are correlated with insurance status and type. The panel design requires fewer assumptions to establish causality than do cross-sectional designs that include controls for

preexisting characteristics or difference-in-difference designs that compare state trends over multiple periods. A key assumption of the panel design is that, conditional on preenrollment ACA opinion, changes in an individual's ACA opinion over the enrollment period results from the benefits (or costs) received as a result of ACA implementation. By this assumption, the difference between individual-level preenrollment opinion and postenrollment opinion subtracts out the effects of factors that are constant throughout the time period, such as political affiliation, ideology, and region, as well as the effect of anticipated benefits on ACA opinion. Individuals who were aware of the law and expected to benefit from it during the open enrollment period were likely to have already had favorable attitudes of the law. To the extent that their experience during open enrollment met their expectations, the attitudes of those who anticipated benefits would have remained constant through the period. Rather, the panel design allows us to understand how attitudes changed as a result of the law exceeding or falling short of individual expectations.

Panel attrition is mitigated to a certain extent by a tighter time frame in this study. Panel attrition could bias the results if individuals who exit the panel are systematically different from those who remain in ways that relate to insurance status and type, as well as ACA opinion. I compared individuals who dropped out of the panel to those who remained in the panel on preenrollment ACA opinion, 2013 insurance type, and socioeconomic and political characteristics for the three periods investigated in the analysis: to the end of open enrollment period, through August, and up to the 2014 midterm elections.

Between the preenrollment and postenrollment period, 6% of the sample dropped out of the panel. Individuals who left the panel had significantly more favorable preenrollment ACA attitudes, although there were no significant differences in socioeconomic and political characteristics among those who left and remained in the panel. There were no differences in 2013 insurance coverage, except that individuals with employer-provided insurance were somewhat more likely to leave the panel. The ACA did not have a direct impact on this group during the first enrollment period, and it is unlikely that their departure correlated with a change in ACA opinion over the enrollment period.

Between the preenrollment and August surveys, 22% of the sample left the panel. I found no difference in preenrollment ACA attitudes among those who left and those who remained or for any insurance, socioeconomic, and political characteristic.

Not all ACA-series panelists were asked to participate in the elections series. As a result, and because the panel spans a longer time period, the

percent missing rises to 34% or 56% in the midterm election period, depending on whether chance of support for or vote for the Democratic candidate is the dependent variable. The missing panelists were significantly more likely to be Republican and to have more negative opinions of the ACA at the start of the open enrollment period. With a one-year time lapse between the start of open enrollment in October 2013 and the November 2014 midterm election, the election results are only suggestive of real effects.

Startup problems with the marketplace websites, including notable difficulties with the federal website, pose another potential challenge to the panel design (Oberlander and Weaver 2015). These problems were largely resolved before the end of 2013, but they may have caused postenrollment ACA opinion for respondents in November to be lower than it would have been in later months. These respondents were less likely to obtain marketplace insurance. I reran the analysis including only individuals whose opinion came from the April or May surveys, when the exchanges were functioning smoothly, and found no meaningful change in the results.

I modeled the relationship between type of insurance and postenrollment ACA opinion as

$$y_{itv} = \alpha_v + \mathbf{h}_{it}'\boldsymbol{\beta}_v + \mathbf{y}_{i(t-1)}'\boldsymbol{\delta}_v + \mathbf{z}_{i(t-1)}'\boldsymbol{\eta}_v + \varepsilon_{itv},$$

where y_{itv} represents one of three ACA postenrollment variables and $\mathbf{y}_{i(t-1)}$ is a vector of all three ACA preenrollment variables. \mathbf{h}_{it} contains eight dummy variables for whether or not the panelist obtained 2014 insurance through the following avenues: the marketplaces, Medicare, Medicaid, other government programs, individually not on the marketplace (self-pay), the US military, or other means. In addition, there is an indicator for whether the individual was unable to obtain insurance. Employer-provided insurance is the omitted variable. It made sense to make this group the baseline group since the majority of Americans receive their insurance through their or their spouse's employer. The ACA was designed to address gaps in the insurance system, and the law had no direct impact on this group during the period under investigation. Indeed, t-tests and bootstrap Kolmogorov-Smirnov tests indicate that there was no significant change in the attitudes of this group during the open enrollment period; the base group is stable, and the effects that we observe with respect to the included insurance groups are differential effects from a stationary base. The term $\mathbf{z}_{i(t-1)}$ is a vector of preenrollment characteristics, including voted in 2012, supported Obama in 2012, black, female, and the log of income. The error

term is ε_{itv} . The intercept term is α_v , and β_v , δ_v , and η_v are the coefficients associated with 2014 health insurance type, preenrollment ACA opinion, and preenrollment characteristics, respectively.

In addition, I considered whether the attitudes of those who obtained insurance through the marketplaces or Medicaid depended on previous insurance status and state of residence. We might expect the most significant change in attitudes to occur among those who were previously uninsured in these groups since they arguably benefited the most from ACA implementation of these policies. In this model, I omitted from the regressions individuals who enrolled in Medicare in 2014, because they were certain of being insured if over the age of 65 and in the near future if under 65 at baseline.

The propensity to become insured and the type of insurance enrolled in depend in part on state of residence. States varied considerably in their implementation efforts, and the basic model estimates the average treatment effects over all states. Thus, treatment is a function of the individual's experience during the enrollment period as a result of federal, state, and local ACA implementation efforts. In an extension of the basic model, I considered whether residence in a state that chose not to accept federal funds to expand Medicaid mediated the effects of being uninsured or obtaining insurance through the marketplaces, Medicaid, or Medicare.

Results

I begin with an analysis of the change in ACA opinion during open enrollment and in August 2014. I then discuss how changes in ACA attitudes as a result of implementation may have affected support for Democratic candidates in the 2014 House midterm elections. I display all results as recycled predictions.²

Postenrollment Opinion

Figure 2 plots the recycled predictions for ACA opinion postenrollment and in August 2014 from the regressions of ACA opinion in these two time periods on eight insurance types, controlling for preenrollment ACA opinion and other characteristics. Figure 2 has panels for ACA favorability, effect on family, and effect on country, in which the vertical lines

2. The coefficient estimates and their standard errors, as well as information about subgroup sizes, are given in the appendix.

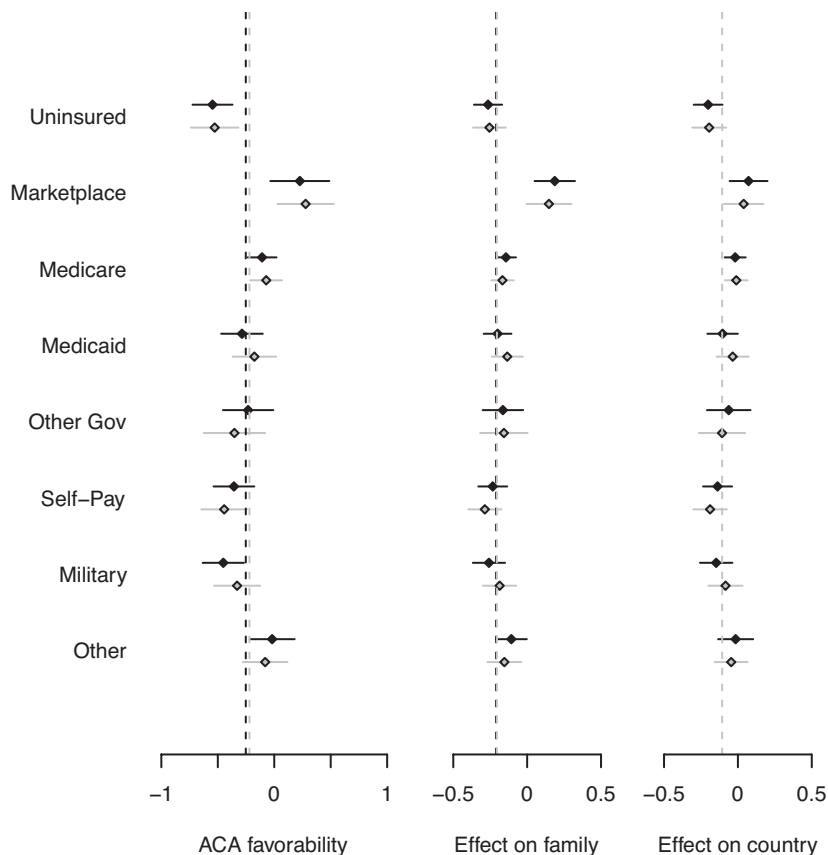


Figure 2 Predicted Postenrollment (Dark Points) and August (Light Points) ACA Opinion by Insurance Type.

Notes: Data are recycled predictions and their 95% Huber-White confidence intervals from regressions of insurance type. The dashed lines indicate predicted postenrollment and August ACA opinion among individuals with employer-provided insurance, the baseline group.

represent the average recycled predictions for the omitted insurance type: employer-provided insurance. The average recycled prediction for the other insurance types is shown by data points: dark for postenrollment and light for August ACA opinion. A data point lying farther to the right (left) of the vertical line indicates a more (less) positive ACA opinion relative to the omitted type. The results show little difference between the postenrollment and August recycled predictions for this insurance type. As a result, the impact for each of the other insurance types shown in figure 2

Table 2 Characteristics of Insurance Groups

Characteristic	<i>N</i>	Uninsured in 2013	2012 Democratic Party ID	2012 Obama support	Median income
Marketplace	111	0.39	0.7	0.68	\$35,000–39,999
Medicaid	324	0.1	0.75	0.78	\$10,000–12,499
Other government insurance	100	0.21	0.72	0.73	\$25,000–29,999
Other	130	0.12	0.63	0.57	\$35,000–39,999
Medicare	696	0.01	0.54	0.53	\$40,000–49,999
Employer	1423	0.04	0.56	0.55	\$60,000–74,999
Military	125	0.04	0.48	0.42	\$50,000–59,999
Self-pay	181	0.11	0.47	0.42	\$50,000–59,999
Overall, insured	2727	0.07	0.58	0.57	\$50,000–59,999
Uninsured	302	0.78	0.6	0.63	\$25,000–29,999

also reflects the difference for that type relative to the preenrollment period. The horizontal lines through the markers are the 95% confidence intervals for the recycled predictions, a different concept than the statistical significance of the insurance type, holding other variables constant. However, in work not shown, I found a high degree of similarity between the significance of the recycled prediction and the significance of the coefficients on the insurance-type variables.

Individuals with marketplace insurance, Medicare enrollees, and individuals who selected “other” insurance all had more favorable opinions of the law after enrollment. The change in attitudes for the marketplace and Medicare groups persisted to August, indicating that ACA implementation had a lasting impact on ACA opinion for these groups. Individuals who purchased insurance through the marketplaces were the only group to have significantly improved attitudes on all three measures of ACA opinion. The changes in attitude are substantively large for both the law’s effect on family and overall favorability rating, suggesting that the improvement reflects personal gain. Thirty-nine percent of marketplace enrollees did not have insurance in 2013 (see table 2), 83% received a premium subsidy (Levitt, Claxton, and Damico 2014), and the others received the same insurance pooling benefits enjoyed by those who have employer-provided insurance. Reflecting these tangible benefits, the marketplace group on average had a positive predicted rating of the law with respect to all three questions.

Individuals enrolled in Medicare also became significantly more favorable toward the law and optimistic about its effect on the country post-enrollment. The attitude shift was small, perhaps a reflection that ACA implementation had a minor impact on this group during the 2014 enrollment period relative to those who were able to purchase affordable insurance on the marketplaces. Notably, Medicare enrollees were not more likely to say that the law made their family better off, suggesting that their change in attitudes may not result from personal benefits but socio-tropic considerations.

Individuals who selected “other” as their insurance type were the only other group to have significantly more positive opinions of the law after enrollment. However, the change in opinion, while still more favorable, is no longer significant in August. Analysis of individuals who had initially selected other insurance and switched coverage in a follow-up survey shows that many of them were enrolled in Medicare.

Two groups had significantly less favorable opinions of the ACA after enrollment: individuals with military or veteran coverage and those unable to obtain insurance for 2014. The effect for military/veteran coverage is substantively small and disappears by August. In comparison, the uninsured experienced a large drop in favorability of the law, which persisted until August. Despite reporting a median income of \$25,000–30,000, the uninsured identified as Democrat at rates similar to the insured, whose incomes were twice as large. They were more conservative than expected because a disproportionate number resided in nonexpansion states, that is, states that chose not to accept Medicaid expansion funds.

These results largely align with the expectation that only groups that benefited from ACA implementation during the open enrollment period would have more positive attitudes of the law upon receiving these benefits. Both the marketplace and Medicare groups had more positive opinions of the law and their increased support of the law persisted until August. The size of the shift is in proportion to the benefit received. In contrast, only the uninsured had sizable and durable declines in support for the law. Possible explanations include an unrealized promise of coverage or the fear of having to pay a tax penalty in the next tax period. Twenty states refused federal funds to expand Medicaid coverage in the first year of implementation, leaving many individuals without insurance. Individuals who fell into the so-called Medicaid gap may have lost faith in the ACA’s promise of insurance for all after they did not gain access to affordable insurance during the first enrollment period. Seventy-eight percent of individuals in the panel who were uninsured in 2014 were also uninsured in 2013 (see table 2).

Notably, the opinions of Medicaid enrollees did not change as a result of ACA implementation. While expansion benefited all individuals on Medicaid by reducing the likelihood of being uninsured in the future, clearly the largest benefit accrued to the 8.4 million adults who qualified as a result of expansion. To the extent that beneficiaries were aware of the ACA's role in expanding Medicaid, we should expect individuals who gained insurance through expansion to have more favorable postenrollment opinions of the law. Similarly, individuals who were previously uninsured and who were able to afford insurance on the marketplaces, often with the support of federal subsidies, arguably benefited the most from the creation of the marketplaces. However, it is important to reemphasize that the analyses estimate the *unanticipated* benefits (or costs) arising from implementation. To the extent that individuals anticipated benefits, their opinions of the law would remain unchanged after enrollment.

I ran regressions with interactions between having no insurance in 2013 and three insurance types: individuals without insurance in 2014, Medicaid enrollees, and individuals with marketplace insurance. Figure 3 plots the recycled predictions for the key interactions. The sample excludes Medicare enrollees since this group was certain to be insured in 2014 (or within the near future if under age 65).³ I observed previous insurance status for only a subset of the sample. As a result, the numbers are too small to draw definitive conclusions from the interaction terms for the marketplace and Medicaid groups. Only 26 of the 249 Medicaid enrollees in the postenrollment sample did not have insurance previously. This number dropped to 19 out of 201 individuals in the August sample. Nevertheless, the combined effect of the main effects for Medicaid and uninsured in 2013 and their interaction is significant at the 90% level and indicates that previously uninsured Medicaid enrollees became more favorable toward the law.

For individuals with marketplace insurance, previous insurance status does not appear to have affected their opinion of the law. Again, the results are only suggestive due to small sample sizes. With respect to ACA favorability and the ACA's effect on family, individuals with marketplace insurance were more positive toward the law regardless of previous insurance status. The difference is significant in all but one case in the postenrollment period and in every case in the August period. On the question of the ACA's effect on country, only individuals who were previously insured changed

3. The Medicaid main and interaction effect estimates are robust to the inclusion/exclusion of Medicare enrollees.

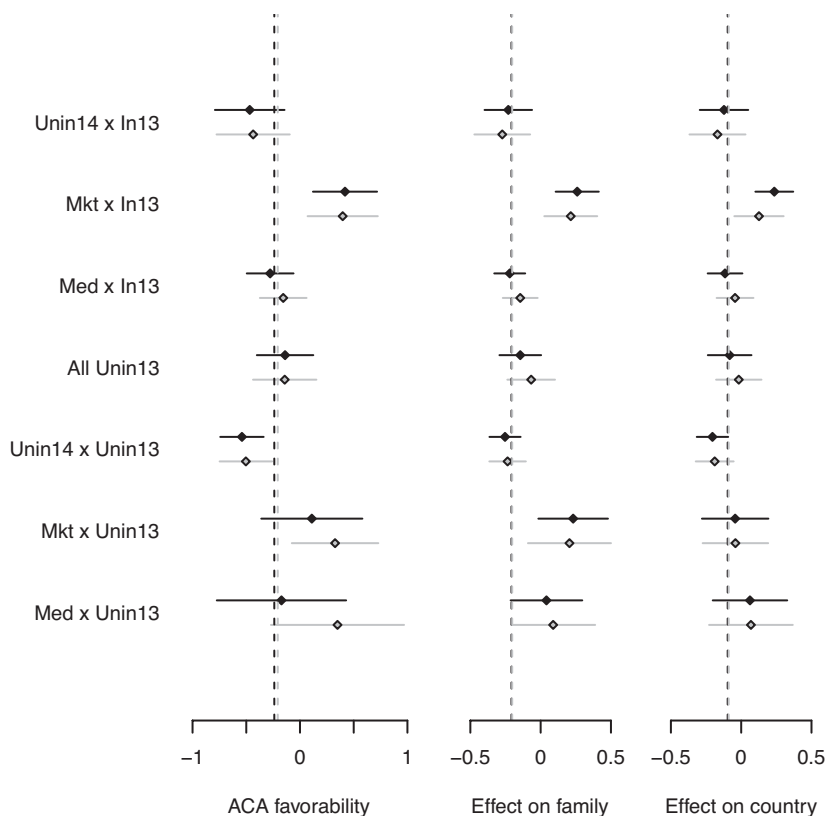


Figure 3 Effect of Being Uninsured in 2013 on Postenrollment (Dark Points) and August (Light Points) ACA Opinion by Insurance Type.

Notes: Data are recycled predictions and their 95% Huber-White confidence intervals from regressions of insurance type, including interactions with previous insurance status. The dashed lines indicate predicted postenrollment and August ACA opinion among individuals with employer-provided insurance, the baseline group.

their opinion. These individuals may have been the most skeptical of the law heading into the enrollment period. Their options for insurance coverage under the law may have exceeded their expectations.

In terms of expectations, individuals who were not able to obtain insurance in 2014 despite the ACA's promise of expanding insurance may have been the most disappointed after the open enrollment period. The results confirm that individuals who were uninsured for both 2013 and 2014 were significantly less favorable toward the law. Those who lost their insurance coverage in 2014 also were less favorable toward the law, but the effect is

not significant. Sixty-two out of 403 individuals reported having lost their insurance in the postenrollment sample. The number dropped to 50 out of 194 in the August sample. In this case, variance in the response and not sample size may explain the lack of significance. Many in this group were left uninsured in 2014 as a result of state decisions not to accept additional federal funds to expand Medicaid.

I considered whether the change in ACA opinion among the uninsured varied depending on residence or, more specifically, on whether a respondent lived in a Medicaid nonexpansion state. Figure 4 plots the results of the recycled predictions from regressions of insurance type on the three measures of ACA opinion, with the inclusion of interactions with residence in a state that chose not to accept federal Medicaid expansion funds and three insurance types: individuals without insurance in 2014, Medicaid enrollees, and individuals with marketplace insurance; the sample includes all individuals. States that chose not to accept Medicaid expansion funds were also more likely to have less generous Medicaid programs prior to ACA implementation and to not take an active role in creating and promoting the health insurance marketplaces. Most relied on the federally operated marketplace. The results suggest that opinion among marketplace enrollees may have improved most in the nonexpansion states after enrollment on the measures of ACA favorability and the ACA's effect on family. By August, however, predicted opinion is consistently higher for individuals with marketplace insurance in expansion states on all three opinion questions. Though significantly more favorable toward the law, individuals enrolled in the marketplace in Medicaid nonexpansion states became less optimistic about the law's effect on their family and on the country by August.

This reversion suggests that initial optimism may have diminished among marketplace participants in Medicaid nonexpansion states, perhaps in response to issues with coverage or as a result of the anti-ACA politics exposed by state elites. Across all insurance types in nonexpansion states, there was no effect of ACA implementation on ACA opinion. These results provide evidence that the panel design effectively controls for pre-enrollment confounders and that the decline in ACA attitudes among marketplace enrollees in nonexpansion states reflects personal experience with implementation.

Among the uninsured, the results reveal that the main effect is no longer significant for all three measures of ACA opinion, and all of the decline in ACA opinion is explained by the interaction with residence in a nonexpansion state. These individuals were significantly more likely to have

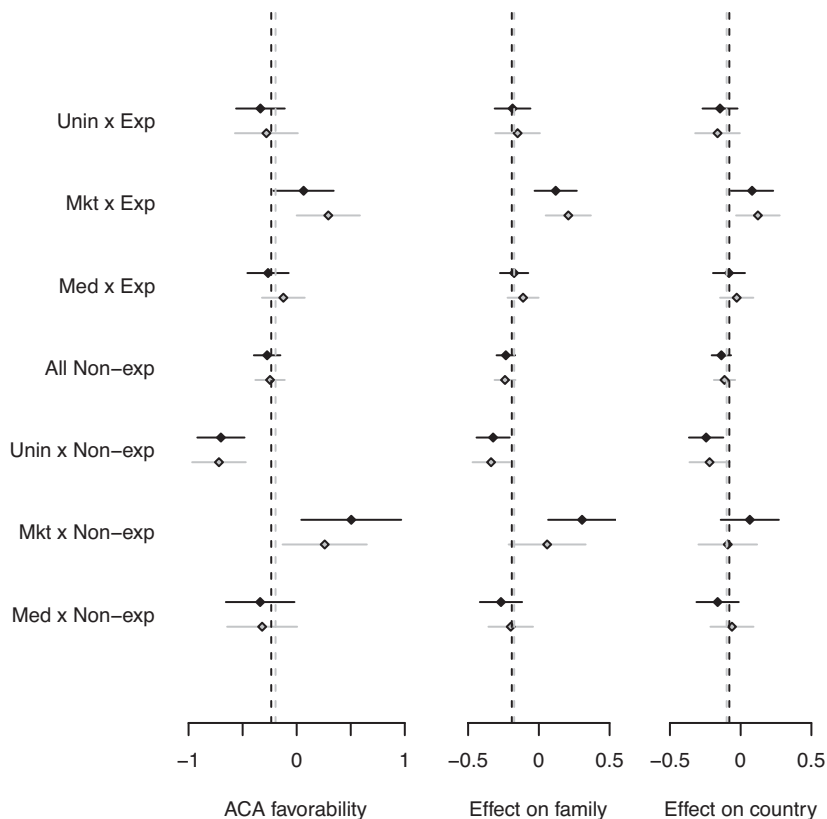


Figure 4 Effect of Residency in a Medicaid Nonexpansion State on Postenrollment and August ACA Opinion.

Notes: Data are recycled predictions and their 95% Huber-White confidence intervals from regressions of insurance type on postenrollment (dark points) and August ACA opinion (light points). The dashed lines indicate predicted postenrollment and August ACA opinion among individuals with employer-provided insurance, the baseline group.

unfavorable opinions of the ACA and believe it would make both their family and the country worse off. These results confirm those of Jacobs and Mettler (2016), who found that ACA opinion did not vary significantly between residents of expansion and nonexpansion states. Rather, it appears that only individuals who were left without insurance in these states had much more negative opinions of the law after the open enrollment period. These results support the conclusion that the uninsured were less supportive of the law as a result of unmet expectations of ACA implementation. Figure 4 also shows predicted postenrollment and August ACA opinion for all individuals in nonexpansion states.

Across these analyses of postenrollment opinion, I found consistently more positive ACA opinions among individuals who enrolled in marketplace insurance. In addition to being more favorable toward the law, they were more likely to say that the law makes their family better off. In contrast, I found that individuals who were unable to obtain insurance in 2014 were less favorable toward the law. This effect appears to be concentrated among uninsured individuals residing in states that chose not to expand Medicaid. Based on their incomes, they are likely to have qualified for Medicaid if the eligibility threshold had been raised in their state. In the next section, I consider how changes in policy attitudes may have affected political opinion and behavior.

House Midterm Elections, 2014

For policy to affect political outcomes, policy benefits must affect political behavior, by turning out new groups of voters, impacting political debate, or influencing candidate support. The panel design does not allow me to evaluate the impact of policy on voter turnout. While I observed turnout in the 2012 presidential election, this variable does not effectively control for likelihood of turnout in the subsequent midterm election. Specifically, older voters were more likely to turn out and are more likely to have benefited from Medicare reforms implemented under the ACA during the first period of open enrollment. It is unlikely, however, that this group's higher turnout in the midterm election was a result of ACA implementation rather than simply a result of their higher propensity to vote. I am able to assess the impact of ACA implementation on party support in the midterm election, although these results are only suggestive due to significant panel attrition between the health and election surveys over the course of the entire year.

First, I reran the basic regression of insurance type on ACA opinion, including interactions with Democratic Party identification for all insurance types. These results, shown in figure 5, are suggestive: the sample size for certain subgroups is too small to make a reliable inference, particularly among individuals with marketplace insurance. There are only 26 Republicans and Independents in the postenrollment marketplace sample and 22 in the August sample. Keeping this in mind, there is evidence to suggest that Republicans and Independents with marketplace insurance had the largest improvement in ACA opinion in the postenrollment period. By August, these gains had diminished, though the effects were

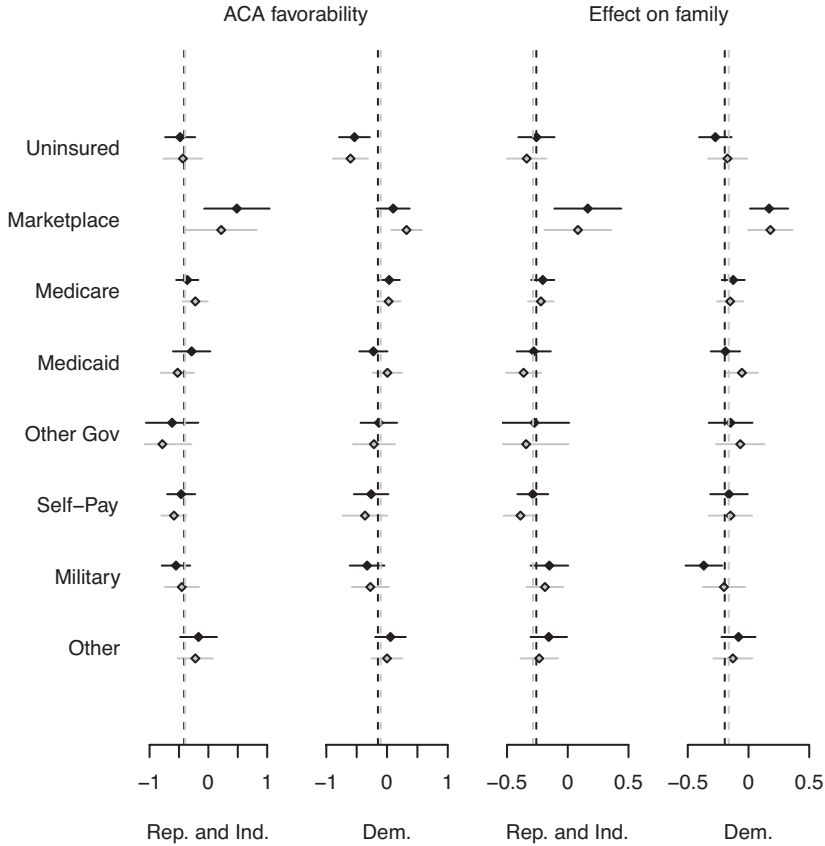


Figure 5 Postenrollment (Dark Points) and August (Light Points) ACA Opinion by Insurance Type and Party Affiliation.

Notes: Data are recycled predictions and their 95% Huber-White confidence intervals from regressions of insurance type, including interactions with 2012 Democratic Party identification. The dashed lines indicate predicted postenrollment and August ACA opinion among individuals with employer-provided insurance, the baseline group.

still significant for ACA favorability and the ACA's effect on family. Among the uninsured, Democrats were significantly less likely to be favorable toward the law after implementation. This decline persisted into August.

Because the results discussed so far reveal no significant change in ACA opinion for most insurance groups, ACA implementation during the first enrollment period likely had little effect on midterm election choices.

Groups not directly impacted by the law had the same opinion of the ACA throughout the first enrollment period and heading into the November midterm election. Partisanship more than any other factor appears to have shaped their position on the ACA, so implementation should not have directly impacted their voting behavior.

There are two groups, however, where implementation did have a sizable effect on policy preferences: individuals who were able to buy insurance on the marketplaces, often with the support of federal subsidies, and individuals left without insurance after the end of the open enrollment period. The question is whether their changing opinion of the law had any influence over how they voted in the election. The ACA featured prominently in the debates surrounding the 2014 midterm election, and many observers described the election as a referendum on Obama and Obamacare. Those who benefited from the law by being able to purchase insurance on the marketplaces had a reason to support Democratic candidates in the House and Senate elections. Republican candidates campaigned on a promise to dismantle the law in the next Congress. It is clear that, for most voters, preserving the ACA was not a priority. Republicans made sizable gains, claiming the majority in the Senate, increasing their majority in the House, and achieving a net gain of two states in gubernatorial elections. Significantly, incumbent Republicans in states that refused to accept federal Medicaid funds retained their seats.

Figure 6 plots the results of regressions of insurance type on vote for and support for the Democratic candidate in the 2014 House midterm elections. I found that individuals with marketplace insurance increased their support for Democratic House candidates, but their more positive assessment did not translate into an increased likelihood to vote for the Democratic candidate in the election. ACA implementation had no significant effect on political attitudes and behavior for the uninsured.

Placebo Tests

The key assumption of the panel design is that, conditional on baseline ACA opinion and other preenrollment variables, insurance type and postenrollment ACA opinion are independent of other factors that are constant over time. To provide support for the model, I conducted a series of placebo tests to demonstrate that there is no correlation between 2014 health insurance type and Democratic Party identification in the 2012 presidential election conditional on the regression model.

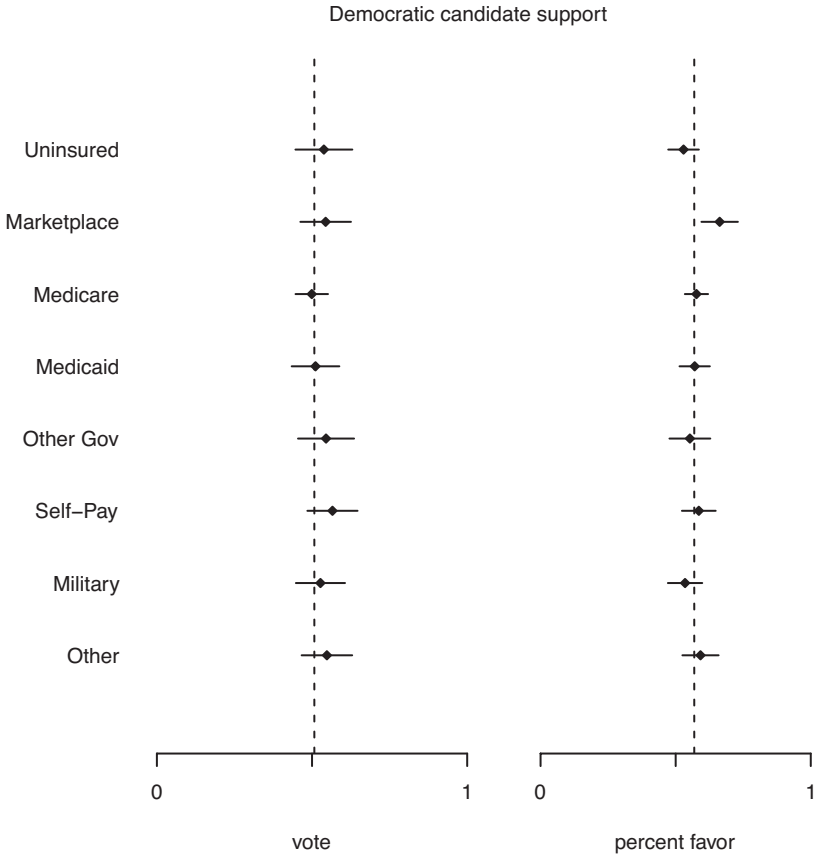


Figure 6 Postenrollment (Dark Points) and August (Light Points) ACA Opinion by Insurance Type and Party Affiliation.

Notes: Data re recycled predictions and their 95% Huber-White confidence intervals from regressions of insurance type, including interactions with 2012 Democratic Party identification. The dashed lines indicate predicted postenrollment and August ACA opinion among individuals with employer-provided insurance, the baseline group.

I tested three models: the basic model of the regression with insurance type, the model including interactions with 2013 insurance status, and the model including interactions with residence in a Medicaid nonexpansion state. None of the effects are statistically significant or substantively large for the key variables considered in the analyses. The placebo test results, displayed in figure 7, provide further support that I have captured the effect of ACA benefits received through insurance and not political trends.

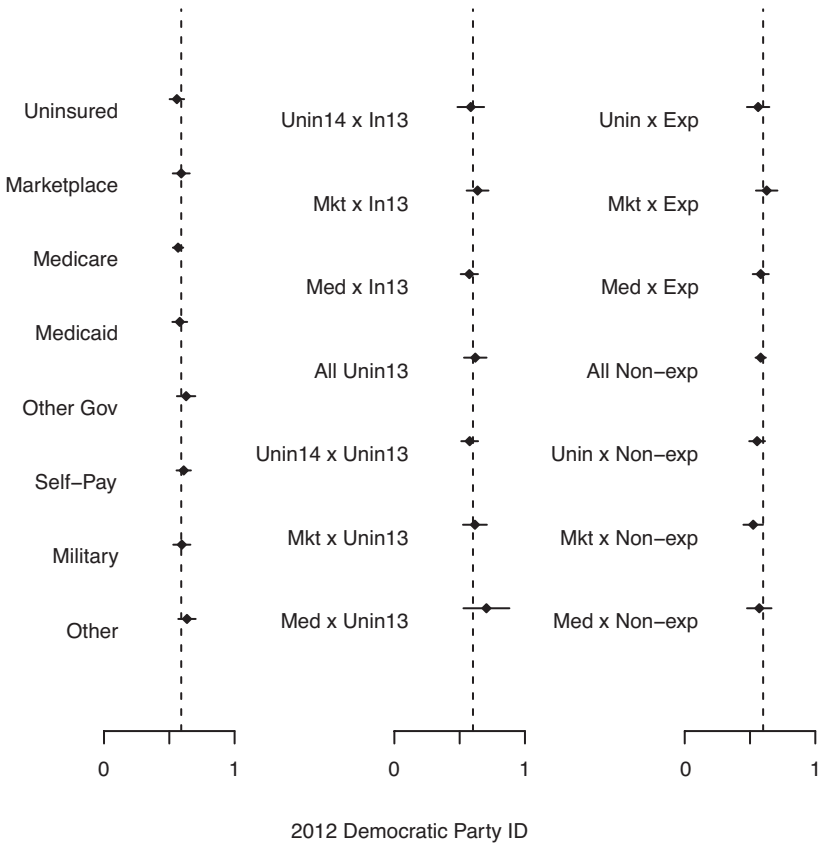


Figure 7 Vote for and Support for Democratic Candidates in the 2014 House Midterm Elections by Insurance Type.

Notes: Data are recycled predictions and their 95% Huber-White confidence intervals from regressions of insurance type. The dashed lines indicate predicted outcomes among individuals with employer-provided insurance, the baseline group.

Discussion

This study provides rare evidence that, under certain circumstances, policies can affect the policy preferences of impacted groups, moving them away from their partisan views. The ALP’s ACA survey series provided the individual-level panel data required to estimate the causal effect of policy benefit receipt on support for the policy. I found that opinions of the ACA among individuals who enrolled in insurance plans on the health insurance marketplaces improved in the few months between the start and close

of open enrollment among both Democrats and Republicans. To a lesser extent, individuals on Medicare also reported improved attitudes of the ACA. These changes in opinion indicate that, for these groups, their experiences during the first period of open enrollment exceeded their expectations heading into this period.

Individuals who enrolled in Medicaid reported no significant change in their opinion over the open enrollment period. Among Medicaid enrollees who were previously uninsured, the group most likely to have benefited from Medicaid expansion, there is some evidence that attitudes of the ACA improved over the open enrollment period and into August. However, these changes in ACA opinion are significant only at the 90% level, possibly due to the small number of these individuals observed in the panel data.

In contrast, opinions of the ACA among individuals who did not obtain insurance during this period became significantly more negative. The decline in opinion, however, is observed only for uninsured individuals in states that did not accept federal funds to expand Medicaid. The incomes of these uninsured individuals place them as likely beneficiaries of Medicaid expansion. Individuals in nonexpansion states therefore appear to attach some responsibility to the ACA for not delivering on its promise of affordable health insurance, even though the responsibility lies with state leaders who rejected federal expansion funds. An expectation of having to pay a tax penalty for not having obtained insurance may also explain decreasing support for the law among those who remained uninsured, even though most had incomes low enough to exempt them from the small penalty.

These changes in preferences persisted at least through August 2014, at which time individuals would have had an opportunity to use their insurance. Despite the fact that improvements in ACA favorability persisted, I found no evidence that changes in opinions of the law resulting from implementation impacted the likelihood of voting for a Democrat candidate in the 2014 House midterm elections. Individuals who obtained insurance on the health insurance marketplaces did report a significantly increased percent chance of supporting the Democratic candidate, though the change does not appear to have affected their ultimate vote choice.

The absence of an election effect on party support may reflect the multidimensional nature of a voter's political calculus, with health policy being only one component. Because voters have an enduring allegiance to their party, it would be remarkable for individuals to shift partisan allegiances as a result of a single policy reform. Moreover, the loss of a significant proportion of panelists across different surveys over the course of the

year may bias the election results. Further data are needed to provide a definitive answer to whether ACA implementation impacted the 2014 midterm election.

Regardless, voters do not have to vote for a different party in order for a policy to affect politics. It is possible that ACA policy increased turnout among policy beneficiaries, which could have had a large impact on the midterm election, when overall voter turnout was low. In addition, candidates and parties may be forced to change their policy platforms to avoid voter retaliation. The results for marketplace insurance suggest that individuals who benefit from the ACA favor the law and will likely oppose any efforts to repeal it without a plan to replace lost benefits with equally good alternatives. When Medicaid was first enacted in 1965, many states chose not to accept federal funds to establish state Medicaid programs (Engelhard and Olson 2010). Facing increasing pressure to expand access to insurance coverage, all states eventually accepted the federal funds and had Medicaid programs in place by 1982 (Tallon, Rowland, and Lyons 2015).

Since the first year of ACA implementation, the trend has been for states to reverse their initial decision not to accept Medicaid expansion funds. Traditional lobbying groups such as hospitals and doctors, who stand to benefit from the additional funds, have put pressure on holdout states to expand Medicaid and opposed the initial repeal-and-replace legislation. As more and more individuals rely on the ACA (or a largely similar program) for their health care, it is possible that the ACA will become another “untouchable” policy, joining Medicare on the third rail of politics. Democrats, campaigning on the issue of health care, regained control of the House of Representatives in the 2018 midterms (Hall and Tolbert 2018). While aspects of the ACA may well change in the future, the question is whether some form of government-organized and subsidized health insurance market will become a widely accepted method for filling the gaps in the US employer-based insurance system.

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Acknowledgments

I gratefully acknowledge Katherine Carman, Eric Schickler, Jasjeet Sekhon, Erin Hartman, and Francesca Refsum Jensenius for their suggestions and guidance in the development of this article, as well as the invaluable feedback from anonymous reviewers, seminar panelists, and my colleagues at the University of California, Davis.

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Appendix A Regressions of Insurance Type on ACA Opinion

	ACA favorability		Effect on family		Effect on country		N group	
	Postenrollment	August	Postenrollment	August	Postenrollment	August	Postenrollment	August
Intercept	-0.48 (0.22)	-0.27 (0.27)	-0.23 (0.13)	-0.19 (0.15)	-0.4 (0.12)	-0.23 (0.12)		
Uninsured	-0.29 (0.08)	-0.31 (0.1)	-0.05 (0.04)	-0.05 (0.05)	-0.1 (0.04)	-0.09 (0.05)	253	190
Marketplace	0.48 (0.12)	0.5 (0.11)	0.4 (0.06)	0.35 (0.07)	0.18 (0.06)	0.15 (0.06)	94	78
Medicare	0.14 (0.04)	0.15 (0.05)	0.07 (0.02)	0.04 (0.03)	0.09 (0.02)	0.1 (0.03)	664	551
Medicaid	-0.03 (0.08)	0.04 (0.09)	0.01 (0.04)	0.07 (0.05)	0 (0.05)	0.07 (0.05)	287	226
Other government coverage	0.02 (0.1)	-0.13 (0.13)	0.05 (0.06)	0.05 (0.08)	0.04 (0.07)	0 (0.07)	92	73
Self-pay	-0.1 (0.07)	-0.22 (0.08)	-0.02 (0.04)	-0.08 (0.05)	-0.03 (0.04)	-0.08 (0.05)	169	131
Military	-0.2 (0.07)	-0.11 (0.08)	-0.05 (0.05)	0.02 (0.05)	-0.04 (0.05)	0.02 (0.05)	121	100
Other	0.23 (0.09)	0.14 (0.08)	0.1 (0.05)	0.05 (0.05)	0.09 (0.05)	0.06 (0.05)	124	106
N	2770	2221	2770	2220	2770	2219		

Notes: Numbers in parentheses are 95% Huber-White standard errors. Control variables (not reported) include preenrollment ACA opinion, voter turnout in 2012, favored Obama 2012, black, female, and log of income.

Appendix B Regressions of Insurance Type on ACA Opinion, Including Interactions with 2013 Insurance Status

	ACA favorability		Effect on family		Effect on country		N group	
	Postenrollment	August	Postenrollment	August	Postenrollment	August	Postenrollment	August
Intercept	-0.41 (0.24)	-0.25 (0.28)	-0.22 (0.13)	-0.19 (0.16)	-0.34 (0.12)	-0.15 (0.13)		
Uninsured	-0.23 (0.16)	-0.23 (0.16)	-0.02 (0.08)	-0.07 (0.1)	-0.03 (0.08)	-0.08 (0.1)	62	50
Marketplace	0.66 (0.14)	0.6 (0.15)	0.47 (0.07)	0.42 (0.09)	0.33 (0.06)	0.22 (0.08)	49	44
Medicaid	-0.04 (0.1)	0.05 (0.1)	-0.01 (0.05)	0.06 (0.06)	-0.02 (0.06)	0.05 (0.06)	223	182
Other government coverage	0.02 (0.13)	-0.15 (0.15)	0.07 (0.08)	0.04 (0.09)	0.12 (0.08)	0.03 (0.09)	57	48
Self-pay	-0.14 (0.1)	-0.33 (0.1)	-0.1 (0.05)	-0.17 (0.06)	-0.07 (0.05)	-0.19 (0.06)	124	109
Military	-0.31 (0.12)	-0.24 (0.13)	-0.04 (0.08)	-0.02 (0.07)	-0.07 (0.07)	-0.05 (0.08)	88	76
Other	0.16 (0.1)	0.05 (0.1)	0.07 (0.06)	0 (0.06)	0.05 (0.07)	0.02 (0.06)	78	67
Uninsured 2013	0.1 (0.12)	0.06 (0.14)	0.06 (0.07)	0.13 (0.08)	0.01 (0.07)	0.07 (0.07)	341	278

(continued)

Appendix B Regressions of Insurance Type on ACA Opinion, Including Interactions with 2013 Insurance Status (*continued*)

	ACA favorability		Effect on family		Effect on country		N group	
	Postenrollment	August	Postenrollment	August	Postenrollment	August	Postenrollment	August
Interactions with uninsured 2013								
× uninsured 2014	-0.17 (0.21)	-0.13 (0.23)	-0.09 (0.11)	-0.1 (0.13)	-0.1 (0.12)	-0.09 (0.13)	179	144
× market	-0.41 (0.29)	-0.14 (0.27)	-0.09 (0.15)	-0.14 (0.18)	-0.29 (0.14)	-0.24 (0.15)	34	32
× Medicaid	0.01 (0.33)	0.44 (0.32)	0.2 (0.14)	0.1 (0.16)	0.16 (0.15)	0.04 (0.16)	26	19
N	2053	1631	2053	1630	2053	1629		

Notes: Numbers in parentheses are 95% Huber-White standard errors. Control variables (not reported) include preenrollment ACA opinion, voter turnout in 2012, favored Obama 2012, black, female, and log of income.

Appendix C Regressions of Insurance Type on ACA Opinion Including Interactions with Residence in a Medicaid Nonexpansion State

	ACA favorability		Effect on family		Effect on country		N group	
	Postenrollment	August	Postenrollment	August	Postenrollment	August	Postenrollment	August
Intercept	-0.47 (0.22)	-0.24 (0.27)	-0.21 (0.13)	-0.15 (0.14)	-0.37 (0.12)	-0.21 (0.12)		
Uninsured	-0.1 (0.11)	-0.08 (0.14)	0.01 (0.06)	0.02 (0.08)	-0.07 (0.06)	-0.06 (0.08)	106	81
Marketplace	0.3 (0.13)	0.49 (0.14)	0.31 (0.07)	0.38 (0.08)	0.16 (0.07)	0.22 (0.07)	59	48
Medicare	0.15 (0.04)	0.15 (0.05)	0.07 (0.02)	0.04 (0.03)	0.09 (0.02)	0.09 (0.03)	372	309
Medicaid	-0.03 (0.09)	0.07 (0.09)	0.02 (0.05)	0.06 (0.05)	0 (0.05)	0.07 (0.05)	208	158
Other government coverage	0.02 (0.1)	-0.14 (0.12)	0.05 (0.06)	0.04 (0.08)	0.04 (0.07)	0 (0.07)	61	47
Self-pay	-0.11 (0.07)	-0.23 (0.08)	-0.02 (0.04)	-0.08 (0.05)	-0.03 (0.04)	-0.08 (0.05)	91	72
Military	-0.2 (0.07)	-0.11 (0.08)	-0.05 (0.05)	0.02 (0.05)	-0.04 (0.05)	0.02 (0.05)	58	51
Other	0.23 (0.09)	0.13 (0.08)	0.1 (0.05)	0.05 (0.05)	0.09 (0.05)	0.06 (0.05)	78	65
Nonexpansion	-0.04 (0.04)	-0.05 (0.04)	-0.04 (0.02)	-0.06 (0.02)	-0.06 (0.02)	-0.02 (0.02)	1219	978

(continued)

Appendix C Regressions of Insurance Type on ACA Opinion Including Interactions with Residence in a Medicaid Nonexpansion State (*continued*)

	ACA favorability		Effect on family		Effect on country		N group	
	Postenrollment	August	Postenrollment	August	Postenrollment	August	Postenrollment	August
Interactions with nonexpansion								
× uninsured	-0.33 (0.14)	-0.39 (0.18)	-0.1 (0.08)	-0.12 (0.1)	-0.04 (0.08)	-0.04 (0.1)	147	109
× market	0.48 (0.26)	0.02 (0.23)	0.23 (0.14)	-0.08 (0.15)	0.04 (0.12)	-0.2 (0.12)	35	30
× Medicaid	-0.03 (0.17)	-0.15 (0.17)	-0.05 (0.08)	-0.02 (0.08)	-0.02 (0.08)	-0.02 (0.08)	79	68
N	2770	2221	2770	2220	2770	2219		

Notes: Numbers in parentheses are 95% Huber-White standard errors. Control variables (not reported) include preenrollment ACA opinion, voter turnout in 2012, favored Obama 2012, black, female, and log of income.

Appendix D Regressions of Insurance Type on ACA Opinion Including Interactions with 2012 Democratic Party ID

	ACA favorability		Effect on family		Effect on country		N group	
	Postenrollment	August	Postenrollment	August	Postenrollment	August	Postenrollment	August
Intercept	-0.6 (0.23)	-0.31 (0.28)	-0.23 (0.13)	-0.23 (0.16)	-0.46 (0.13)	-0.23 (0.13)		
Uninsured	-0.07 (0.11)	-0.03 (0.15)	0 (0.07)	-0.05 (0.07)	0.06 (0.07)	0.06 (0.08)	83	69
Marketplace	0.9 (0.28)	0.62 (0.3)	0.42 (0.14)	0.37 (0.13)	0.15 (0.11)	-0.02 (0.09)	26	22
Medicare	0.05 (0.06)	0.18 (0.07)	0.05 (0.03)	0.06 (0.04)	0.02 (0.03)	0.04 (0.03)	280	236
Medicaid	0.13 (0.15)	-0.12 (0.13)	-0.02 (0.07)	-0.08 (0.07)	0.08 (0.08)	0.08 (0.07)	62	45
Other government coverage	-0.2 (0.21)	-0.38 (0.23)	-0.02 (0.14)	-0.06 (0.17)	-0.09 (0.13)	-0.07 (0.15)	21	19
Self-pay	-0.05 (0.1)	-0.19 (0.07)	-0.03 (0.05)	-0.1 (0.05)	0.05 (0.04)	-0.05 (0.04)	80	63
Military	-0.14 (0.1)	-0.05 (0.12)	0.11 (0.07)	0.1 (0.06)	0.03 (0.07)	0.03 (0.07)	60	50
Other	0.24 (0.14)	0.18 (0.13)	0.1 (0.07)	0.05 (0.07)	0.21 (0.09)	0.02 (0.08)	42	37
2012 Democrat ID	0.26 (0.08)	0.29 (0.09)	0.06 (0.04)	0.12 (0.05)	0.16 (0.05)	0.15 (0.05)	1445	1169

(continued)

Appendix D Regressions of Insurance Type on ACA Opinion Including Interactions with 2012 Democratic Party ID (*continued*)

	ACA favorability		Effect on family		Effect on country		N group	
	Postenrollment	August	Postenrollment	August	Postenrollment	August	Postenrollment	August
Interactions with 2012 Democrat ID								
× uninsured	-0.32 (0.16)	-0.46 (0.2)	-0.08 (0.09)	0.04 (0.1)	-0.22 (0.09)	-0.25 (0.11)	130	94
× market	-0.65 (0.3)	-0.19 (0.31)	-0.06 (0.15)	-0.03 (0.16)	0.03 (0.13)	0.25 (0.12)	62	53
× Medicare	0.13 (0.09)	-0.05 (0.1)	0.02 (0.05)	-0.05 (0.05)	0.11 (0.05)	0.11 (0.05)	325	268
× Medicaid	-0.2 (0.17)	0.24 (0.15)	0.03 (0.08)	0.19 (0.08)	-0.09 (0.09)	-0.02 (0.08)	189	157
× other government coverage	0.22 (0.25)	0.27 (0.28)	0.06 (0.16)	0.15 (0.19)	0.16 (0.16)	0.09 (0.18)	57	47
× self-pay	-0.06 (0.16)	-0.07 (0.19)	0.06 (0.09)	0.12 (0.1)	-0.12 (0.09)	-0.04 (0.1)	71	54
× military	-0.04 (0.16)	-0.12 (0.18)	-0.28 (0.09)	-0.14 (0.1)	-0.11 (0.1)	-0.01 (0.1)	54	45
× other	-0.04 (0.18)	-0.07 (0.17)	0.01 (0.09)	-0.02 (0.1)	-0.2 (0.11)	0.04 (0.1)	71	61
N	2466	2003	2466	2001	2466	2000		

Notes: Numbers in parentheses are 95% Huber-White standard errors. Control variables (not reported) include preenrollment ACA opinion, voter turnout in 2012, favored Obama 2012, black, female, and log of income.

Appendix E Regressions of Insurance Type on Vote for and Support for the Democratic Candidate in the 2014 House Midterm Elections

	Vote Democrat	<i>N</i>	Support Democrat	<i>N</i>
Intercept	0.14 (0.07)		0.57 (0.06)	
Uninsured	0.03 (0.04)	74	-0.04 (0.03)	158
Marketplace	0.04 (0.04)	45	0.09 (0.03)	62
Medicare	-0.01 (0.02)	367	0.01 (0.02)	456
Medicaid	0 (0.03)	91	0 (0.03)	195
Other government coverage	0.04 (0.04)	35	-0.02 (0.04)	64
Self-pay	0.06 (0.03)	79	0.02 (0.03)	107
Military	0.02 (0.03)	68	-0.03 (0.03)	86
Other	0.04 (0.04)	69	0.02 (0.03)	88
<i>N</i>	1245		1830	

Notes: Numbers in parentheses are 95% Huber-White standard errors. Control variables (not reported) include preenrollment ACA opinion, voter turnout in 2012, favored Obama 2012, black, female, and log of income.

Appendix F Placebo Tests of the Analysis Models

	Test 1	Test 2	Test 3
	Basic model	2013 insurance interaction	Medicaid nonexpansion state interaction
Intercept	0.25 (0.1)	0.25 (0.11)	0.26 (0.1)
Uninsured	-0.03 (0.02)	-0.02 (0.05)	-0.04 (0.04)
Marketplace	0 (0.03)	0.04 (0.04)	0.03 (0.04)
Medicare	-0.02 (0.01)		-0.02 (0.01)
Medicaid	-0.01 (0.02)	-0.03 (0.03)	-0.02 (0.03)
Other government coverage	0.04 (0.03)	0.07 (0.04)	0.03 (0.03)
Self-pay	0.02 (0.02)	0.02 (0.03)	0.02 (0.02)
Military	0 (0.03)	0.06 (0.04)	0.01 (0.03)
Other	0.04 (0.03)	0.01 (0.04)	0.04 (0.03)
Insured in 2013		0.02 (0.04)	
Uninsured × uninsured in 2013		-0.03 (0.07)	
Market × uninsured in 2013		-0.04 (0.07)	
Medicaid × uninsured in 2013		0.11 (0.09)	
Nonexpansion			-0.02 (0.01)
Uninsured × nonexpansion			0.01 (0.05)
Market × nonexpansion			-0.08 (0.05)
Medicaid × nonexpansion			0.01 (0.05)
<i>N</i>	2466	1818	2466

Notes: Data are regressions of insurance type on Democratic Party identification in the 2012 midterm election, including basic model and models with interactions for 2013 insurance status and residence in Medicaid nonexpansion state. Numbers in parentheses are 95% Huber-White standard errors. Control variables (not reported) include preenrollment ACA opinion, voter turnout in 2012, favored Obama 2012, black, female, and log of income.

Federalism, the Affordable Care Act, and Health Reform in the 2020 Election

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ABSTRACT

ISSUE: Under the U.S. federalist system, governing responsibility is allocated between the federal and state governments. The Affordable Care Act (ACA), which expanded Americans' coverage options, among other health system changes, reflects this structure. While the federal government provides most of the financing for subsidized coverage and sets a federal floor for insurance market regulations, states have flexibility to implement the law. Current health reform proposals from the political right aim to give greater responsibility to states; proposals from the left expand the federal role.

GOALS: To review the federal–state governance balance regarding health care, assess how Republican and Democratic proposals might alter that balance, and assess the potential impact on insurance coverage and access to care.

METHODS: Evaluation of federal and state governing responsibilities under the ACA and in emerging reform proposals, along with assessment of regional differences in coverage and access using state-level federal data.

KEY FINDINGS AND CONCLUSIONS: The ACA's blend of federal standards and subsidies combined with state regulatory authority significantly improved coverage and access nationally and narrowed regional differences. However, the law's federalist structure, established in statute and altered through regulations and court decisions, resulted in disparities in coverage and access across states. These differences would likely widen under proposals that expand state authority and narrow under those that reduce it.

TOPLINES

- ▶ States' flexibility in how they implement the Affordable Care Act has resulted in pronounced geographic variations in health insurance coverage and access to care.
- ▶ Republican health reform proposals would give greater responsibility to states, while proposals from Democrats would expand the federal government's role.



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BACKGROUND

The U.S. health system is characterized by considerable geographic variation in insurance coverage, access to care, health status, quality of care, and cost of care. As shown in Exhibit 1, 2017 uninsured rates among nonelderly adults with incomes below 200 percent of the federal poverty level (FPL) varied sixfold across states (from 7% in Massachusetts and Vermont to 43% in Texas).¹ Of the eight states with uninsured rates of 30 percent or higher in this income group, seven are in the South.²

Cost-related access problems closely track regional uninsured rates (Exhibit 2). All but two of the seven states where a third or more of adults with low incomes reported forgoing care because of cost are in the South.³

Geographic variation on health indicators also occurs at the substate level — the county and metropolitan statistical area (MSA) level, even within the same states.⁴ These regional disparities mean that parts of the United States lag even further behind other economically advanced countries than national averages suggest.⁵ This

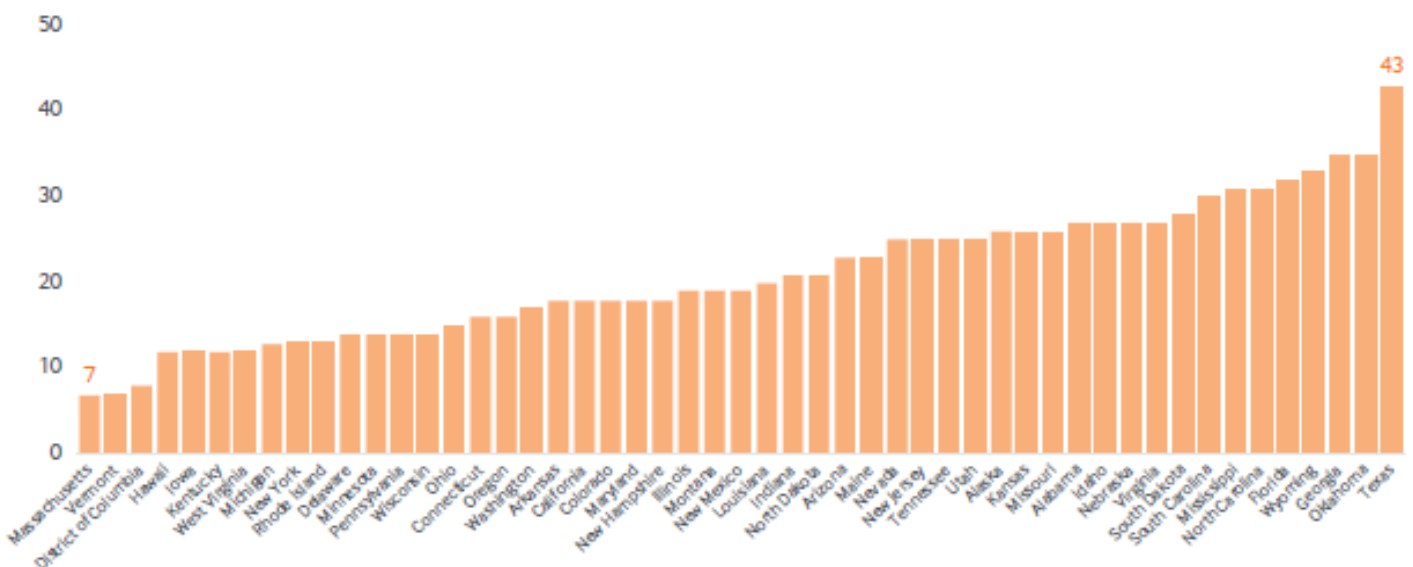
matters not only for people living in low-performing regions but also for the U.S. economy more broadly. Such divisions will, ultimately, undermine the nation's long-term economic growth potential.

The Affordable Care Act (ACA) both reduced the nation's uninsured rate and narrowed the geographic variation in health insurance coverage. An estimated 20 million people gained coverage, and the difference in the adult uninsured rates between the highest and lowest states (Texas and Massachusetts) narrowed by 5 percentage points.⁶ Improvements in coverage stemmed from both from the law's federal regulations and subsidies and the flexibility granted to states in implementing the law.

California provides one example of state-influenced improvements. California expanded eligibility for Medicaid, established its own marketplace, and adopted state-specific policies and operational approaches. By 2017, California had reduced its uninsured rate by 14 percentage points — more than may have occurred had the state just used the federal marketplace platform.

Exhibit 1. In 2017, uninsured rates among nonelderly adults with incomes below 200 percent of the federal poverty level varied sixfold across states, from 7 percent to 43 percent.

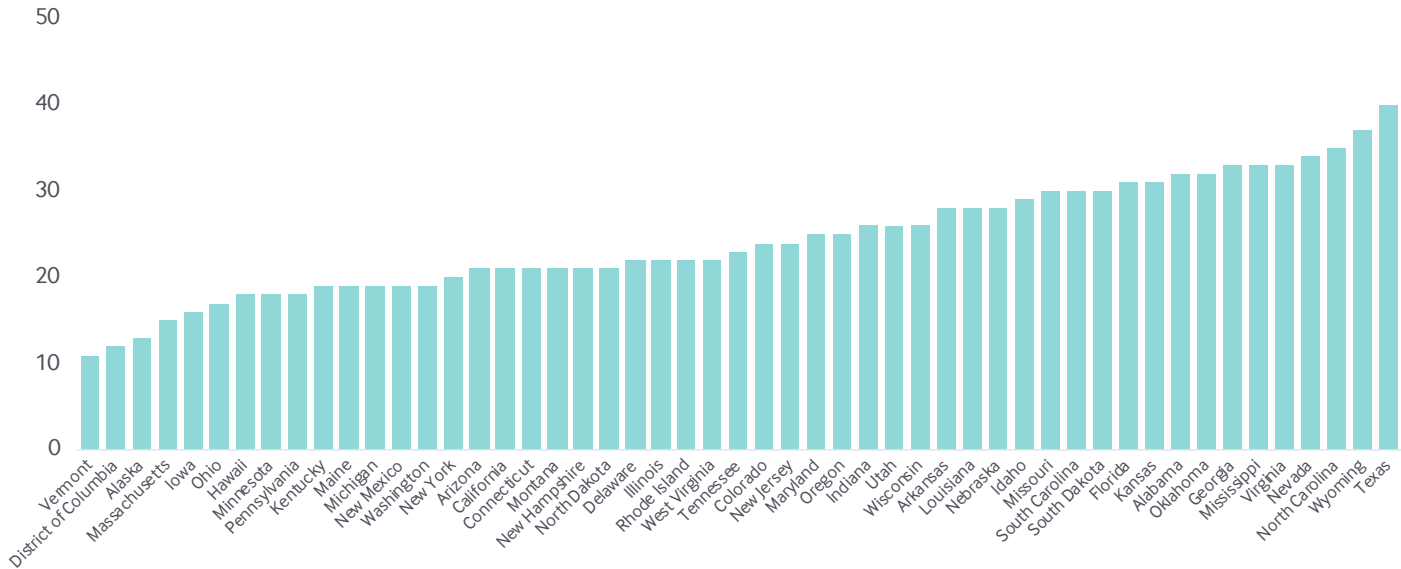
*Percentage of uninsured adults ages 19–64 with incomes below 200 percent of federal poverty level**



* In 2017, income of less than \$24,120 for a single person was below 200 percent of the federal poverty level. Data: U.S. Census Bureau, 2017 1-Year American Community Survey, Public Use Microdata Sample (PUMS).

Exhibit 2. In 2017, the states with the highest rates of forgone health care because of cost among nonelderly adults were concentrated in the South.

Percentage of adults ages 18–64 with incomes below 200 percent of the federal poverty level who went without care because of cost*



* In 2017, income of less than \$24,120 for a single person was below 200 percent of the federal poverty level.
Data: Behavioral Risk Factor Surveillance System (BRFSS), 2017.

At the same time, the ACA's uniform federal policies also meant that people living in states that did not set up their own marketplaces or expand Medicaid, like Mississippi, also made gains. The law improved performance and reduced state differences on indicators most directly linked to coverage, such as access to care and consumer financial problems stemming from uncovered health care encounters.⁷

However, state discretion on key aspects of coverage expansion also limited the extent to which regional differences narrowed and tempered national gains. State decisions not to expand Medicaid has left more than 2 million people without coverage in 2019.⁸ Negative downstream effects were also triggered in states that didn't expand Medicaid, including higher marketplace premiums, which affect people with incomes above the premium subsidy threshold.⁹ Rural hospital closures have also been higher in states that did not expand Medicaid.¹⁰ Research has also shown that states that made aggressive efforts to inform and enroll eligible people in Medicaid and marketplace coverage had higher enrollment.¹¹

The debate over whether federal or state governments can make needed improvements in coverage and access and reduce regional disparities in health system outcomes will be prominent in the 2020 presidential campaign.¹² Coverage gains resulting from the ACA have stalled since 2015 and are reversing in some states.¹³ An estimated 44 million people now have health plans that leave them underinsured, with cost protections deteriorating fastest in employer plans, the source of coverage for the majority of Americans (which was least affected by the ACA).¹⁴ With health care costs outpacing growth in median incomes nationally, it's not surprising that recent polls show the cost of health care to be a top concern of voters.¹⁵

Leading Republican and Democratic health reform proposals to address these interrelated problems differ, in part, over the relative emphasis they give to federal versus state government authority.¹⁶ In this report, we assess the balance of federal and state governance over health care in these proposals and discuss how that balance might affect key indicators of insurance coverage and access.

U.S. FEDERALISM AND THE ACA

U.S. federalism, or the allocation of governing responsibility between federal and state governments, has evolved and changed over the course of U.S. history. States had significantly greater autonomy in governance prior to the 1930s.¹⁷ After the Great Depression, the federal government assumed greater responsibility, perhaps because of a recognition that poor conditions in one state can affect the country's overall growth and the need to ensure the rights of African Americans and other minorities who had suffered devastating discrimination and terror across the South and Great Plains. In health care, the federal government's increasing role was most significantly manifested in the creation of Medicare and Medicaid in 1965.

By the 1970s, there was a backlash to federal decision-making, and a new form of federalism emerged that emphasizes a greater role for states in policy.¹⁸ For example, after the failure of comprehensive health reform in 1994, Congress created the state-based Children's Health Insurance Program in 1997. Abbe Gluck describes this new federalism approach as "national federalism": the allocation of implementation authority to states from federal statutes.¹⁹

The ACA built on this tradition, granting states a significant role in implementing the law's coverage expansion, subject to a strong federal floor (see box).

States' role in implementing the ACA has increased even further under various regulations, guidance, and court decisions:

- The Obama administration, through executive actions, gave states choices, such as defining the essential health benefit package within federal parameters and allowing the renewal of plans that do not comply with all ACA insurance reforms.
- In 2012, the Supreme Court's decision in *NFIB v. Sebelius* made optional the requirement that states extend Medicaid to all adults with incomes below 138 percent of FPL.
- Beginning in 2017, Congress and the Trump administration reduced the federal government's role in setting standards and operations; for example, they reduced efforts to encourage people to enroll, including zeroing out the tax penalty for not having coverage.
- The Trump administration has let states have even more flexibility in designing the essential health benefit package and alternatives to the ACA under the 1332 waiver program.²¹
- The Trump administration loosened restrictions on non-ACA-compliant plans.
- In Medicaid, the Trump administration has encouraged states to use the section 1115 waiver program to test work requirements and other policies not previously approved.

Federal Rules and State Authorities Under the ACA

The federal government provides:

- Protections for people with preexisting health conditions
- Uniform financial assistance for people with incomes below 400 percent of the federal poverty level
- Individual and employer mandates to ensure people gain and keep coverage.

States have authority to:

- Oversee their individual, small-, and large-group insurance markets

- Manage their Medicaid program
- Run their own insurance marketplace
- Create a Basic Health Plan for people earning between 138 percent and 200 percent of FPL
- Set up risk adjustment and rate review programs
- Make significant changes to their individual markets (through a Section 1332 state innovation waiver) so long as the coverage offered is affordable, comprehensive, and available to the same number of people as under current law (without raising federal costs).²⁰

States have responded to these options and actions in different ways:

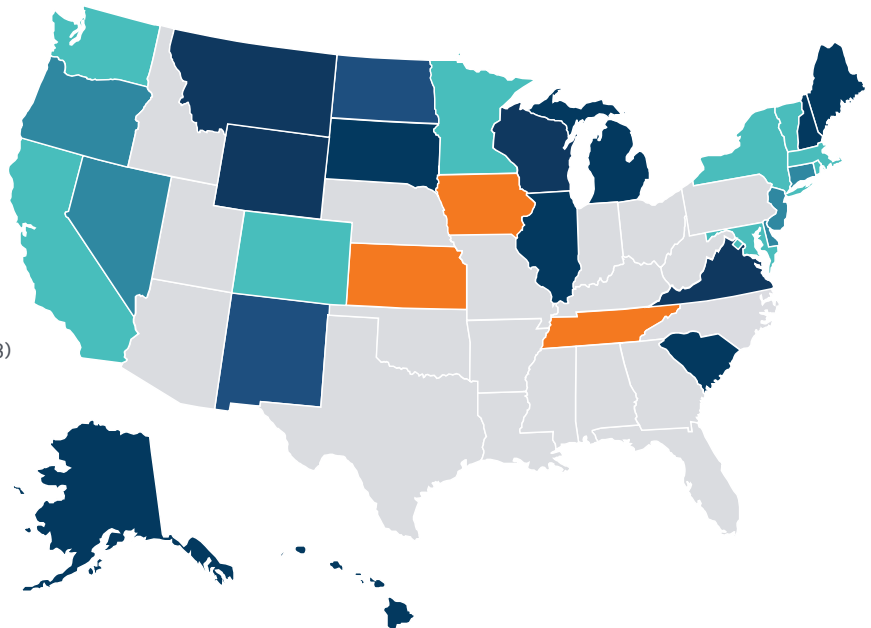
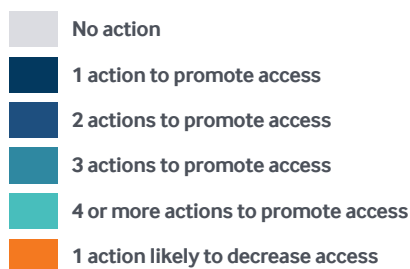
- Twelve states fully run their own marketplaces and another five have their own marketplaces but use the federal website to enroll people;²² evidence suggests that enrollment and issuer participation are higher and premiums are lower in such states compared to states that use the federal government's marketplace.²³
- In the individual market, 27 states have taken regulatory actions aimed at stabilizing and improving their markets, some of which predate the Trump administration, including establishing a reinsurance program and banning or placing limits on non-ACA-compliant policies (Exhibit 3).
- Three states have exempted health plans sold by the state farm bureau from the ACA's consumer protections, an approach consistent with the Trump administration's goals of loosening regulations.
- In Medicaid, 33 states and the District of Columbia have adopted the ACA expansion. Voters in three states approved ballot initiatives to expand Medicaid in the 2018 midterm elections, but those states have yet to expand (Exhibit 4).

From a geographic variation perspective, what is notable is the concentration of states along the coasts and in the Upper Midwest that have sought to increase coverage and access. On Medicaid expansion, Deep South states stand out as doing the least to expand coverage options. This, in part, reflects politics: these states have had Republican legislatures or governors that opposed implementing the ACA. However, this partisan opposition to the law stands in contrast to a traditional conservative preference for state rather than federal government control of public policy. It also may reflect other factors, such as differences in the size and structure of state governments, historical state coverage policy, local public opinion, stakeholder engagement, concerns over long-term costs to the state, and leadership.²⁴

Exhibit 3. State Action on Their Individual Markets

Type of action (number of states):

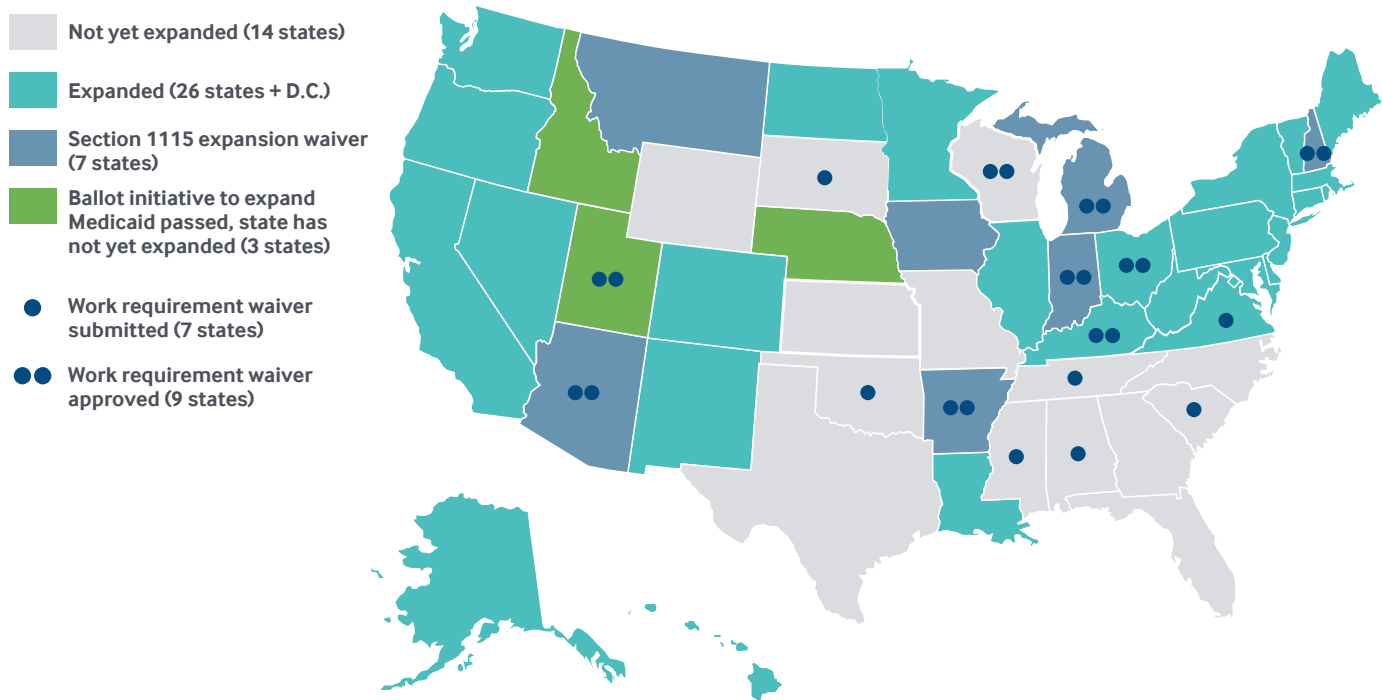
1. Reinsurance (7)
2. Individual mandate requiring health coverage (5 + D.C.)
3. Health coverage subsidies (3)
4. Short-term health plan regulation (23 + D.C.)
5. Annual open enrollment period extensions (7 + D.C.)
6. Promotion of ACA marketplace competition (6 + D.C.)
7. Prohibition of noncompliant transitional health plans (14 + D.C.)
8. Exemption of farm bureau plans from insurance rules (3)
9. Public plan option (1)



Note: Extension of open enrollment is for 2019 coverage.

Data: Commonwealth Fund, "What Is Your State Doing to Affect Access to Adequate Health Insurance?," (Commonwealth Fund, last updated July 2019).

Exhibit 4. Status of Medicaid Expansion Across the States



Note: Adults in Wisconsin are eligible for Medicaid up to 100 percent of the federal poverty level.

Data: Commonwealth Fund, "Status of Medicaid Expansion and Work Requirement Waivers," (Commonwealth Fund, last updated July 2019).

HEALTH REFORM APPROACHES: FROM GREATER STATE AUTHORITY TO GREATER FEDERAL AUTHORITY

In the past year, several Democratic members of Congress introduced significant health reform bills. Republicans' last major health reform proposal was the final repeal-and-replace bill introduced by Senators Graham and Cassidy in September 2017. As illustrated in Exhibit 5, these bills can be placed on a continuum of governmental authority. On the left are those bills that give the federal government greater authority. On the right are those bills that allocate more authority to the states.

Republicans: State Innovation Approaches

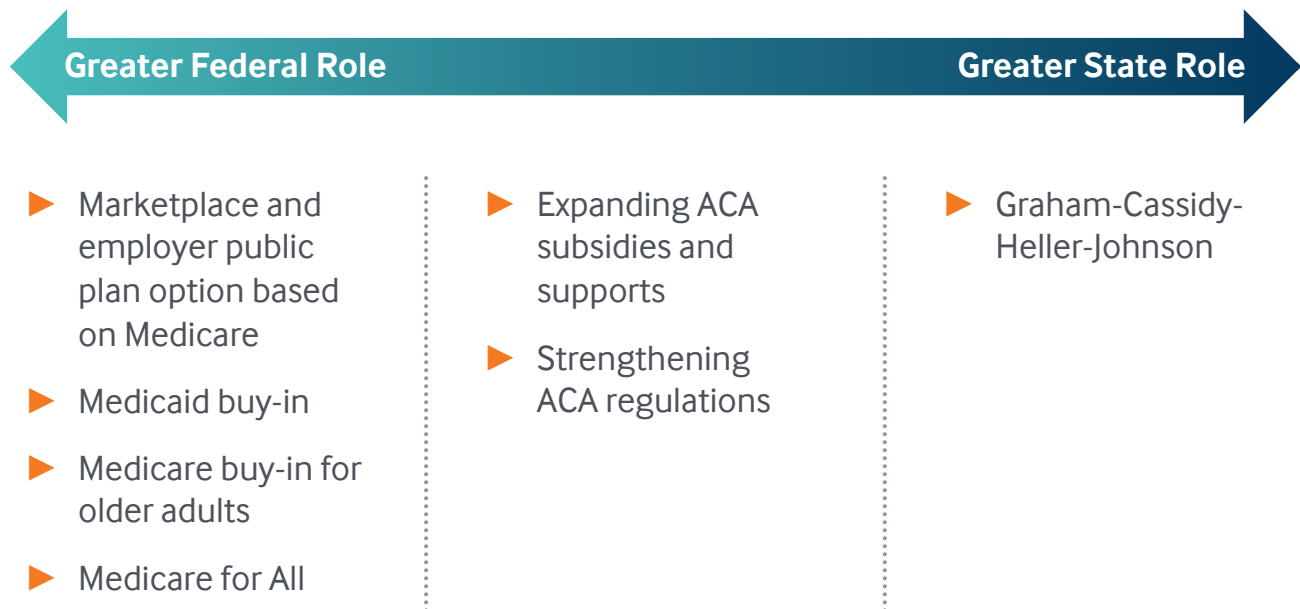
The Graham, Cassidy, Heller, and Johnson (GCHJ) amendment, named for the Republican senators that sponsored it, was the last of the 2017 ACA repeal-and-replace bills. It has been embraced by President Trump and could be adopted in the 2020 Republican platform.²⁵ GCHJ repeals the ACA marketplace subsidies

and Medicaid expansion funding and replaces them with block grants that states can use for a wide range of purposes. It also places per capita spending limits on the traditional Medicaid program.

GCHJ would significantly reduce and reallocate federal funding. The Congressional Budget Office (CBO) estimated that it would reduce net federal subsidies for health insurance by at least \$133 billion over 10 years and shift funding away from states that expanded Medicaid eligibility toward those that did not.²⁶ It also would allow states discretion in setting rules for their individual market, consistent with similar block-grant proposals that trade reduced federal funding for increased state control over insurance markets and programs.

GCHJ would give states extraordinary flexibility in the use of federal funds. States could use the block grant funding to expand coverage, pay providers, or lower premiums and consumer out-of-pocket costs in the individual market. However, as the CBO notes in its analysis of the bill, states also could use these funds to patch holes in

Exhibit 5. Health Reform Approaches Left to Right



state budgets or finance uncompensated care. In addition, unlike most federal grants, the GCHJ block grants wouldn't require states to maintain funding for their existing Medicaid programs or CHIP, in similar areas (i.e., so-called maintenance-of-effort requirements). The only restriction is that states must use half of the funds for assistance for people with incomes between 50 percent and 300 percent of poverty.

The lower funding level would constrain states' choices. Most states with Medicaid expansions would likely find it challenging, for example, to maintain coverage with less funding. Likewise, fewer federal funds would make it difficult for states to sustain the preexisting condition protections in the individual market. This is because without sufficient premium tax credits, young people and individuals in good health might drop out of the market. To prevent a so-called death spiral, states might allow insurers to rate based on health, undermining protections for people with preexisting conditions.

Despite this shift toward state control, Republicans would preserve a federal role in significant parts of the health system. GCHJ would not change the federally run Medicare program for seniors and certain people with disabilities. Nor would it modify federal rules and

tax breaks for employer-based coverage except for its expansion of federally defined health savings accounts. In 2018, the tax exclusion for employer benefits amounted to \$280 billion, the largest single federal tax expenditure.²⁷

Democrats: Public Plan Expansions

There are considerably more Democratic proposals that aim to expand coverage, improve affordability, and/or lower the rate of health care cost growth.²⁸ Several bills, such as those introduced by Sen. Elizabeth Warren and Rep. Frank Pallone, would add more federal financing and authority to the ACA's coverage provisions, including enhanced subsidies and market regulations.

Others introduce public insurance plan options based on Medicare, which range in scope from plans that would only be available to people with limited coverage options in state marketplaces (such as the bill sponsored by Sens. Michael Bennet and Tim Kaine) to expanding the public option to employers and employees. Medicare buy-in bills would offer public insurance plans based on Medicare through the marketplaces to people age 50 and older (Sen. Debbie Stabenow and Rep. Brian Higgins) and state options to expand Medicaid to people buying coverage on their own (Sen. Brian Schatz).

Most Medicare for All proposals, including those sponsored by Sen. Bernie Sanders, Rep. Pramila Jayapal, and Rep. Keith Ellison, would make a single public plan the sole source of major medical coverage. However, Rep. Rosa DeLauro's bill would preserve a highly regulated role for employer coverage.

These proposals would generally expand the federal role in the health system in one of two ways:

- by adding more federal standards and subsidies to private plans
- by offering a federally run public plan alongside or instead of private insurance plans.

Raising federal minimum standards for insurance markets and increasing subsidies, as the Warren and Pallone bills propose, builds on the ACA framework. Doing so would limit some of the flexibility states are given under the ACA (e.g., by tightening network adequacy and rate review rules) and leverage other federal programs like Medicare Advantage and Medicaid managed care to ensure a choice of insurers in the individual market. Other proposals would inject Medicare payment rates into private plans in certain circumstances. For instance, a bill proposed by Sen. Jeanne Shaheen limits costs for out-of-network health care. These proposals would shrink the role of states relative to the ACA.

Alternatively, bills that would give people a choice of a public plan or insure everyone through a single public plan would use a government-managed health plan to improve access to and affordability of insurance. Generally, eligibility rules would be set for the nation. The Medicare for All proposals would introduce uniform, Medicare-like benefits and pay providers at Medicare rates. The public-plan options would allow geographic adjustment of features, such as premiums and benefits to place the public plan on a level playing field with state-regulated private plans. The proposals that give people a choice of a public plan aim to address local disparities in the number of plan choices by offering people a federally defined alternative to private plans that would either fill a local gap or incent local private plans to become more

affordable as they compete for enrollees. They also seek to lower payments to providers, one of the key drivers of health care spending in private insurance markets.²⁹

In general, these public plan proposals would vest authority in the federal government, but they could give states decision-making authority. The version of the ACA that the Senate brought to the floor in November 2009 would have allowed states to opt out of having a public plan offered to their residents.³⁰ The Medicaid buy-in proposal, as proposed in the Schatz bill, would be purely at states' discretion, subject to federal rules and accompanied by federal funding. While a state interested in a Medicaid buy-in could theoretically implement it under GCHJ, the fixed (and likely limited) amount of federal funding might make it a practical impossibility.

The Medicare for All proposals would eliminate state-run and state-regulated health plans. Two House versions of Medicare for All would create regional and state budgets for hospitals and other institutional providers, along with regional directors. The shift in responsibility for health insurance coverage from the states to the federal government is demonstrated vividly in the shift in financing of health care spending. While overall health care spending is estimated to either fall or increase by less than the overall rise in demand from insuring everyone with no cost-sharing, the responsibility for paying for health care moves from states, employers, and households to the federal government.³¹ Liu and Eibner estimate that a Medicare for All approach if implemented in 2019 would reduce employer and household spending by about \$1.7 trillion, lower state health care expenditures by \$638 billion, and increase federal spending by \$2.4 trillion.³²

HOW MORE AND LESS FEDERALISM AFFECTS REGIONAL DIFFERENCES IN COVERAGE AND ACCESS

How would different degrees of state versus federal authority, which characterize these conservative and progressive reform approaches, reduce differences in insurance coverage and access to care?

GCHJ. The approach represented by the Graham, Cassidy, Heller, and Johnson Senate amendment would likely lower overall insurance coverage nationwide by reducing federal financing and allowing funding to be used for noncoverage purposes. An estimated 21 million Americans could lose coverage.³³

States could use their block grant to target geographic areas with the greatest coverage and access issues. However, given the fixed (and, in most states, reduced) funding available under GCHJ, this approach would reduce coverage in other parts of the state. Assuming that past is prologue, many states along the coasts and in the Upper Midwest (as shown in Exhibits 3 and 4) would respond to the enhanced flexibility in GCHJ by maximizing coverage subject to resource limits. States in the South and Central Midwest, meanwhile, might be expected to loosen insurance market regulations and use some block-grant funds for purposes other than coverage expansion.

Republicans could modify GCHJ to ensure that states use greater amounts of funds for coverage or provide the same level of current federal funding (with no federal savings). Both modifications would improve coverage-related outcomes relative to the GCHJ legislation in some states.³⁴ However, block-grant funding is, by design, preset by a formula; it lacks automatic adjustments for local cost trends, the demographic makeup of states, and unexpected events like hurricanes or disease outbreaks, which may leave states with insufficient funding to continue current programs.³⁵ Such adjustments could be built into the formula.

Building on the ACA. The bills that seek to build on the ACA would preserve the current division of authority between federal and state government, but the different goals and details of each bill would impact the legislation's potential for increasing coverage nationally and reducing state variation on coverage and access measures. For instance, adding a public plan option to the marketplaces might improve the affordability of plans for people without subsidies and ensure markets have at least one insurer. But its primary effect on coverage would come from having a reduced-cost and potentially more trusted health plan. By itself, such an approach may not have the same coverage impact as increasing subsidies,

closing the Medicaid gap, or reinstating the tax penalty for not having health insurance.

Medicare for All. At the other end of the federalism spectrum, a Medicare for All approach, which would leave virtually no discretion to states, would be expected to increase coverage nationally and significantly reduce state variation in coverage and access. Given its near-automatic enrollment of all residents, it would go the farthest in moving states like Texas closer to the front of the pack.

However, its uniform approach might not eliminate regional differences in access to care, which persist under Medicare.³⁶ Additionally, it would stifle innovation in states like California, which have been performance leaders in marketplace and Medicaid expansion implementation.

CONCLUSION

The ACA and related regulations and court decisions have given states considerable flexibility in how they implement the federal law. This has resulted in geographic variation on key performance indicators related to insurance coverage and access to care.

Several states have emerged as performance leaders, creating innovative approaches to their marketplaces, investing in enrollment outreach and education, and smoothing enrollment and reenrollment in state Medicaid programs. Other states have achieved fewer gains in coverage because they did not expand Medicaid or undertake aggressive efforts to inform and enroll people who are eligible for marketplace coverage. As such, expanding state control of the health system may enable deregulation or advance other goals, but will likely do little to reduce geographic disparities in access and coverage.

More broadly, policy decisions about the allocation of state versus federal governing responsibility in health care have implications for the relative performance of states as well as the overall health of the U.S. population. Since human capital is key to the nation's long-term economic growth — and health is a critical component of human capital — declining health status in any state can have national implications for the ability of the U.S. workforce to rise to the challenges of an evolving global economy.³⁷

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Peterson-Kaiser
Health System Tracker

A look at people who have persistently high spending on health care

By Gary Claxton, Matthew Rae and Larry Levitt *Kaiser Family Foundation*

Health care spending is highly concentrated, with a small share of people accounting for a large share of expenditures during any year - just 5% of people are responsible for at least half of overall spending. This makes understanding and effectively managing the care for this group vital to improving the quality and efficiency of health care delivery.

People with persistently high health spending – 1.3% of all enrollees – had average per person spending of almost \$88,000 and accounted for 19.5% of total spending in 2017

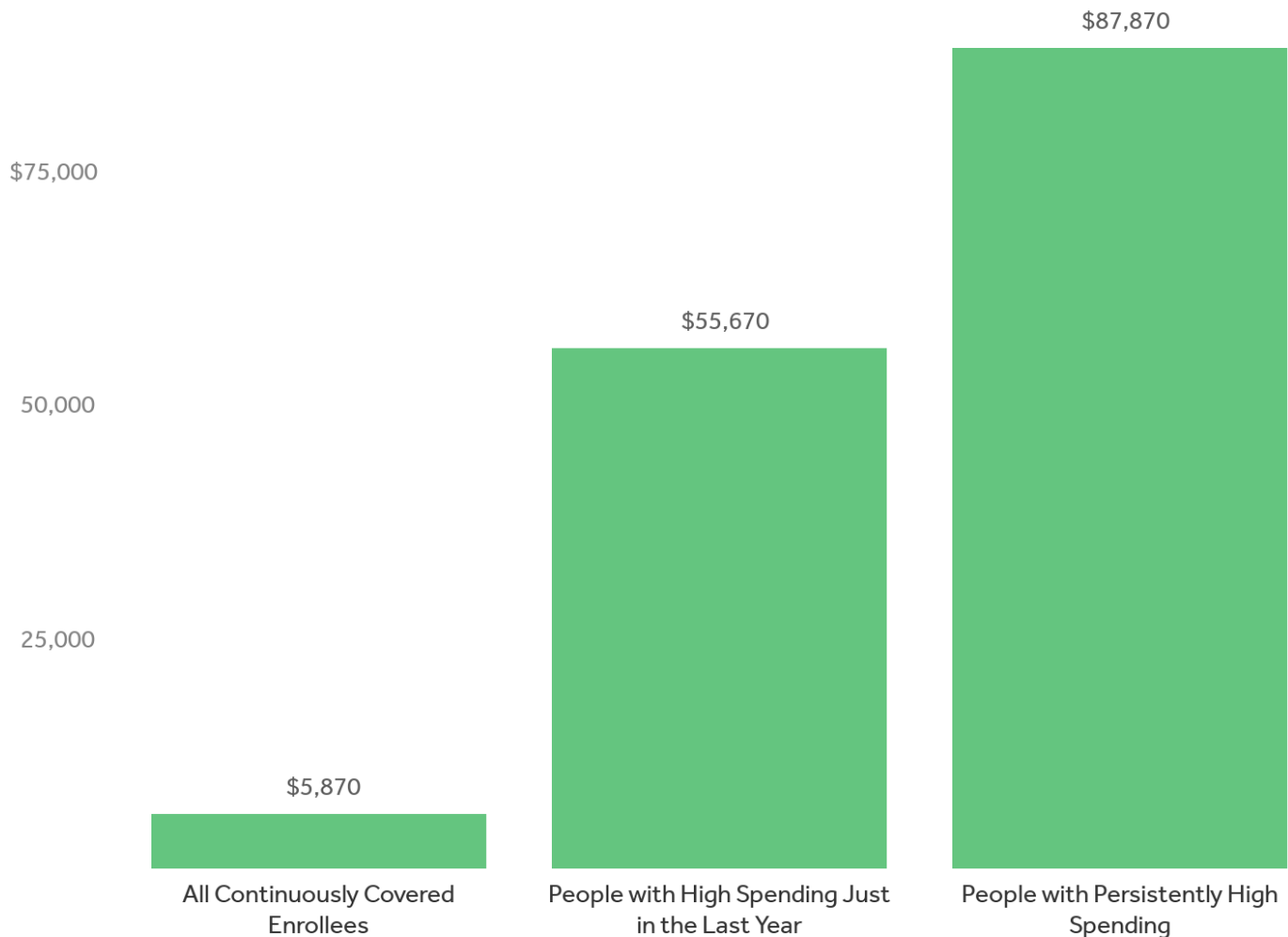
People with high health care spending are not a homogeneous group: some have very high spending during a short spell of illness, while others have ongoing high spending due to one or more chronic illnesses. The patterns and types of medical spending also vary among these high-need patients: for example, those with acute spells of illness are more likely to have high hospital spending while those with chronic illnesses spend more on outpatient services and prescriptions. Those with persistently high spending, while few in number, are some of the most expensive users of care - the 1.3% of enrollees with high spending in each of three consecutive years (2015-2017) had an average spending in 2017 of almost \$88,000, accounting for 19.5% of overall spending that year. The predictability and extent of their spending suggest that any efforts to reduce the total costs of care and improve health system quality must focus heavily on this group of people.

This analysis looks at the amounts and types of health spending for people with employer-based health insurance who have continuing high health care spending. To do this, we used the IBM MarketScan Commercial Claims and Encounters Database (MarketScan) database, which has clinical and enrollment information for millions of workers and their dependents. We looked at the spending for a subset of enrollees with three consecutive years of coverage (2015-2017), which we refer to as “continuously covered enrollees.” We then identified those who were in the top five percent of spenders in each of the three years, which we refer to as “people with persistently high spending.” We show the inpatient, outpatient and prescription spending in 2017 for people with persistently high spending, and compare those to the spending for all continuously covered enrollees and for those with high spending just in 2017 but not in either prior year (“people with high spending just in the last year”). We also analyze enrollees’ diagnoses to identify the health conditions that are most highly correlated with being a person with persistently high spending.

The MarketScan database has a significant advantage for this type of analysis because it contains diagnostic and claims information for a large number of people who can be followed over several years. One important limitation for this analysis is that the claims data show the retail cost for prescription drugs and does not include information about the value of rebates that may be received by payers. Some prescriptions used by people with high spending may be accompanied by substantial rebates (e.g., insulin), while prescriptions for some other drugs, such as sole-source drugs may not result in any rebates to payers.

People with persistently high spending averaged almost \$88,000 in total claims spending in 2017

Average total health spending among people with large employer coverage, by spending category, 2017



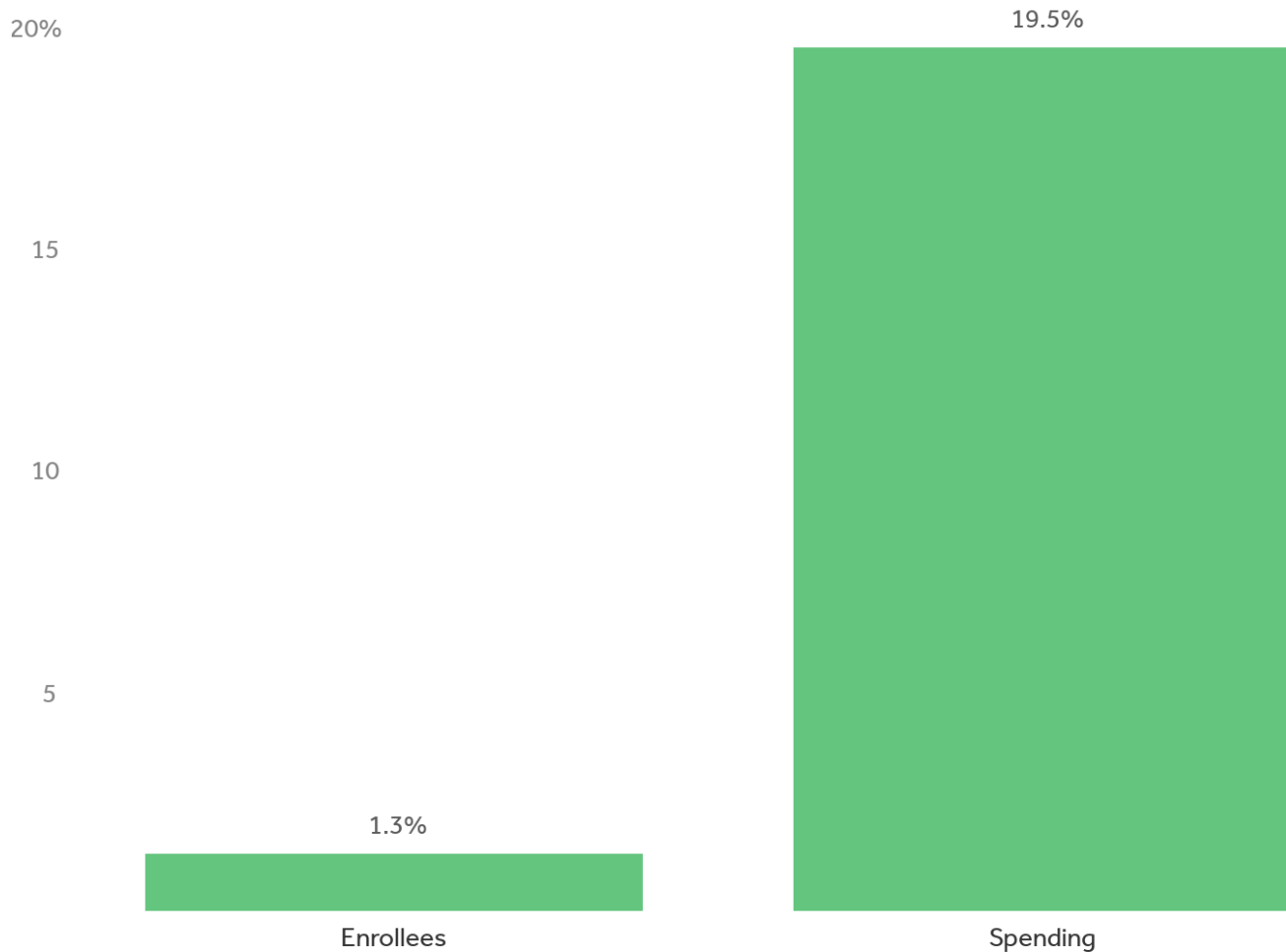
Source: KFF analysis of data from IBM MarketScan Database • [Get the data](#) • PNG

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People with persistently high spending averaged \$87,870 in health spending in 2017, which is almost 60% higher than the average spending for people with high spending just in the last year (those with high spending in 2017 but not in previous years) of \$55,670, and about 15 times more than the average spending for all continuously covered enrollees (\$5,870).

People with persistently high spending are a small share of enrollees but account for a large share of spending

Percentage of people with persistently high spending who constitute share of continuously covered enrollees and total health spending, 2017



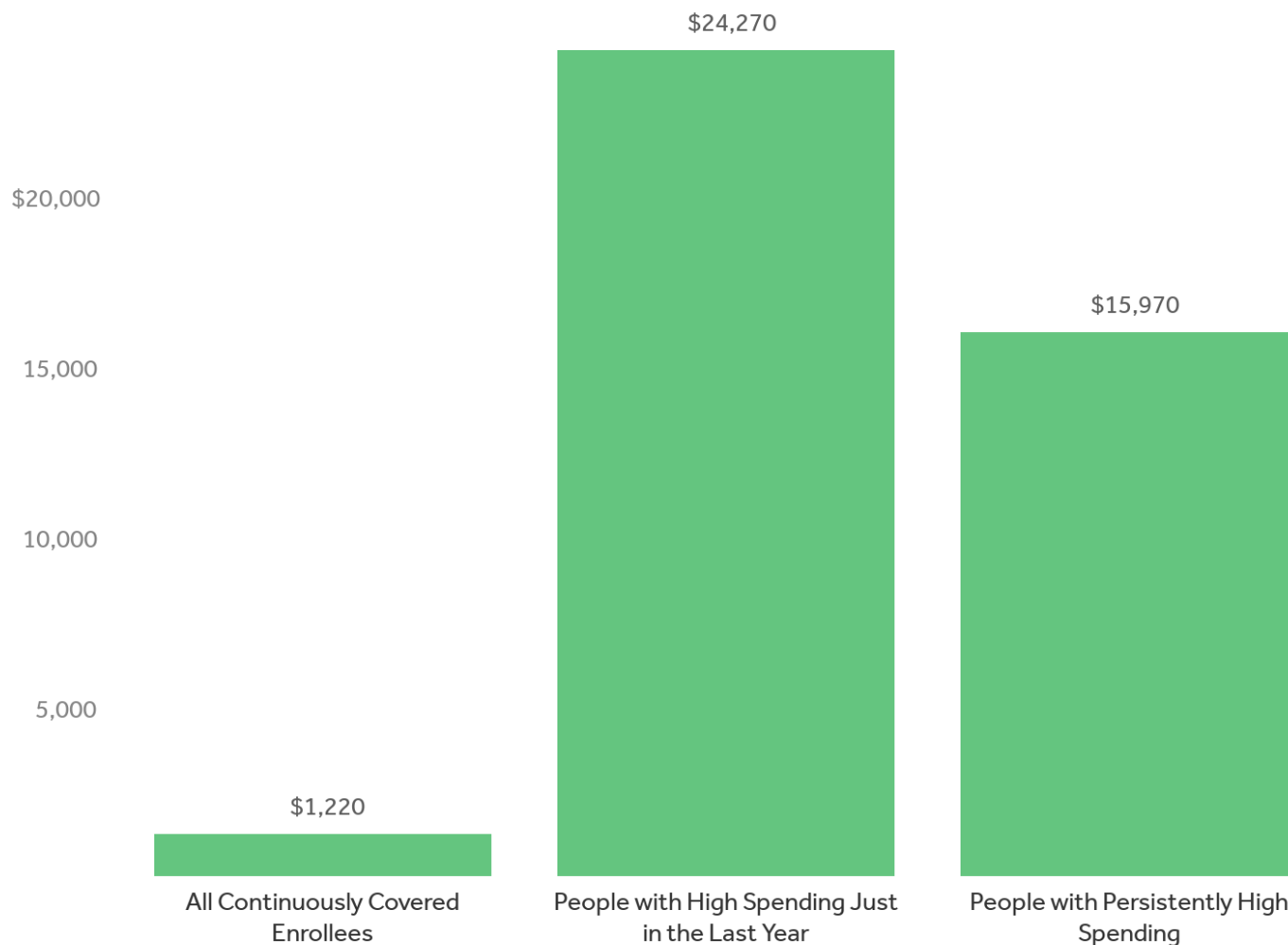
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While people with persistently high spending comprised only a small share of continuously covered enrollees (1.3%), they accounted for 19.5% of total spending in 2017 by the three-year group.

People with high spending just in the last year had higher spending for inpatient services

Average inpatient health spending among people with large employer coverage, by spending category, 2017



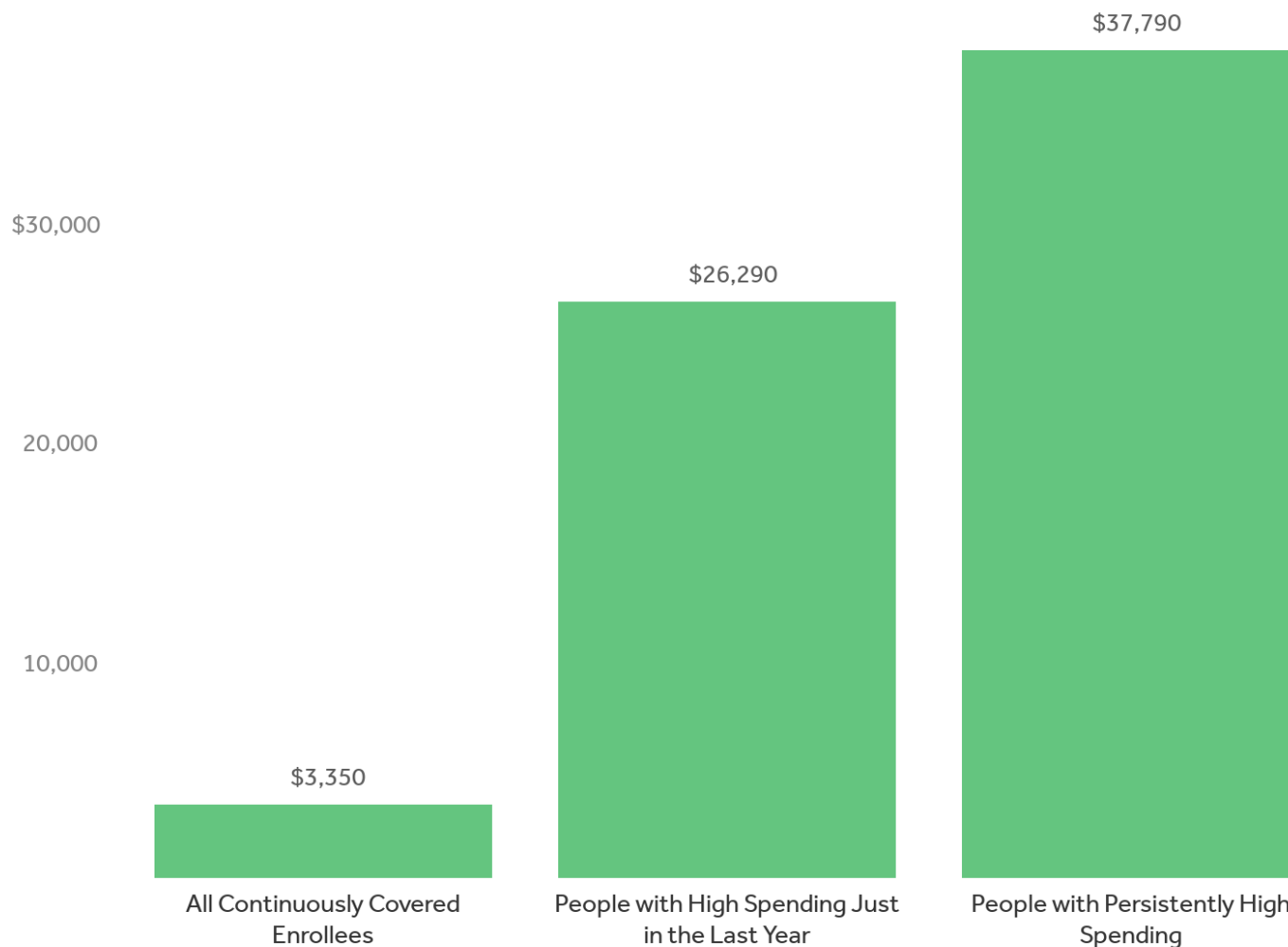
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Although people with persistently high spending had higher overall average spending in 2017, people with high spending just in the last year spent more on average on inpatient services, \$24,270 as compared to \$15,970, likely related to the acute nature of their conditions. Both groups had average inpatient spending that was many times more than the overall average inpatient spending amount of \$1,220 for all continuously covered enrollees.

People with persistently high spending on average spent about 40% more on outpatient services than people with high spending just in the last year

Average outpatient health spending among people with large employer coverage, by spending category, 2017



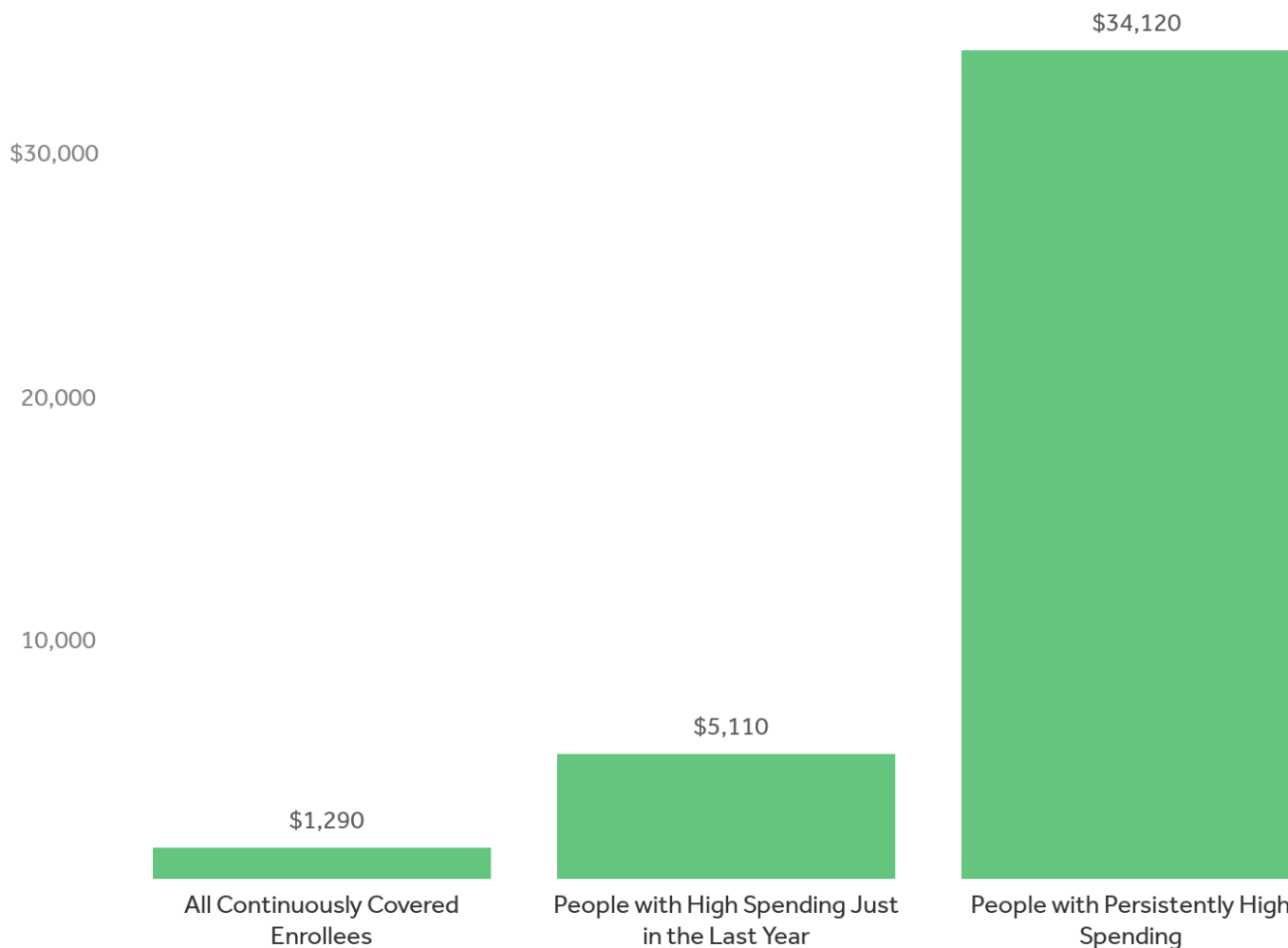
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People with persistently high spending averaged \$37,790 in spending on outpatient services in 2017, 44% more than the average amount for people with high spending just in the last year (\$26,290). One reason is that they used more services: those with persistently high spending had an average of 137 outpatient claims in 2017, compared with 106 for people with high spending just in the last year. The overall average among continuously covered enrollees was 25 outpatient claims per enrollee in 2017.

People with persistently high spending also had much higher spending on retail prescription drugs

Average spending on prescription drugs among people with large employer coverage, by spending category, 2017



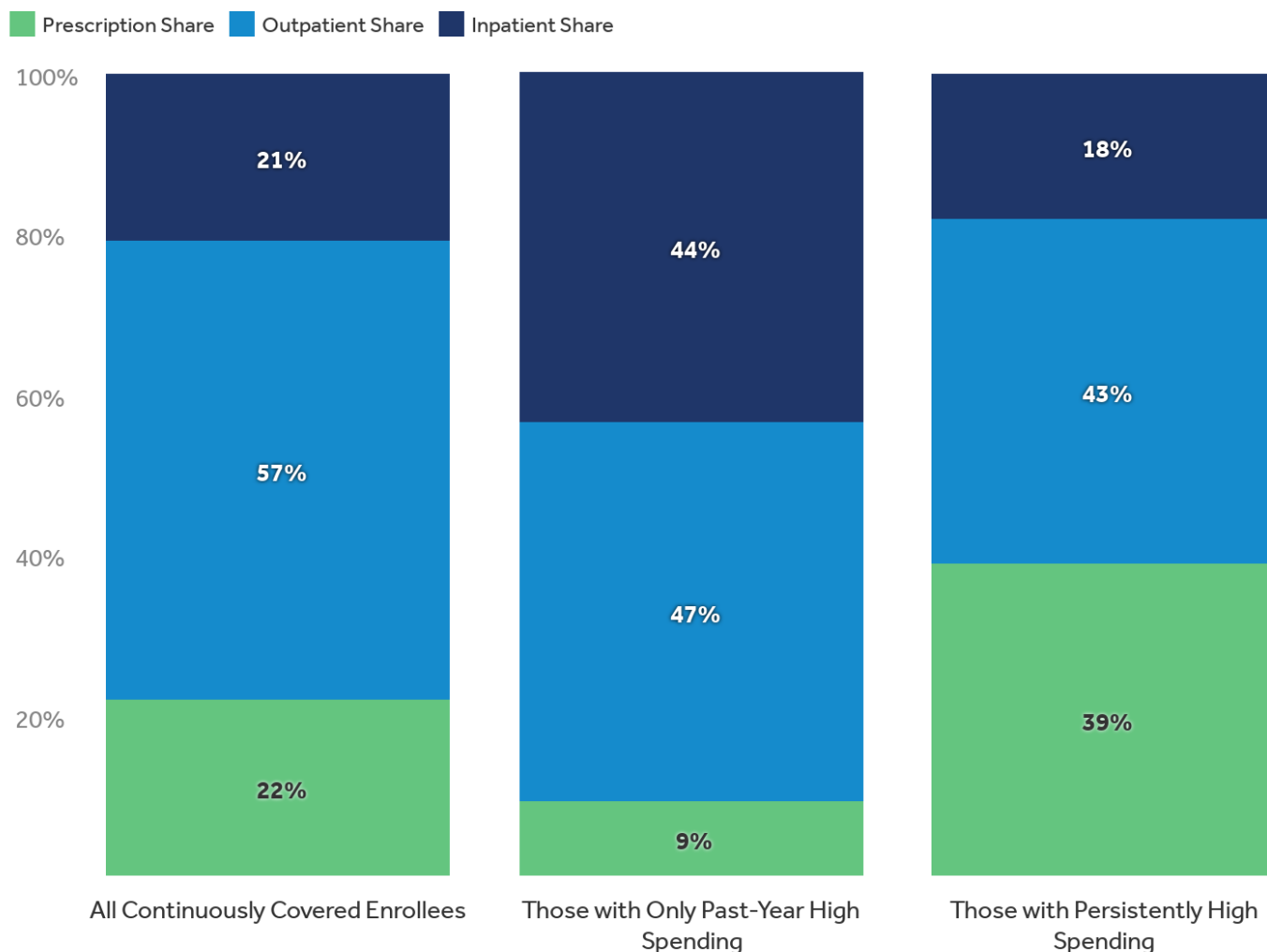
Source: KFF analysis of data from IBM MarketScan Database • [Get the data](#) • PNG

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People with persistently high spending averaged almost \$34,000 in spending on retail prescription drugs (not reflecting any rebates manufacturers may have paid), many times more than the average for people with high spending just in the last year or continuously covered enrollees overall. While this average amount was affected somewhat by a small share of enrollees with very high prescription spending, the median prescription spending for those with persistently high spending was about \$23,000, demonstrating the pervasiveness of high prescription spending among this group.

Spending on prescriptions was a significant share of the total spending by people with persistently high spending

Distribution of total health spending among people with large employer coverage, by spending category, 2017



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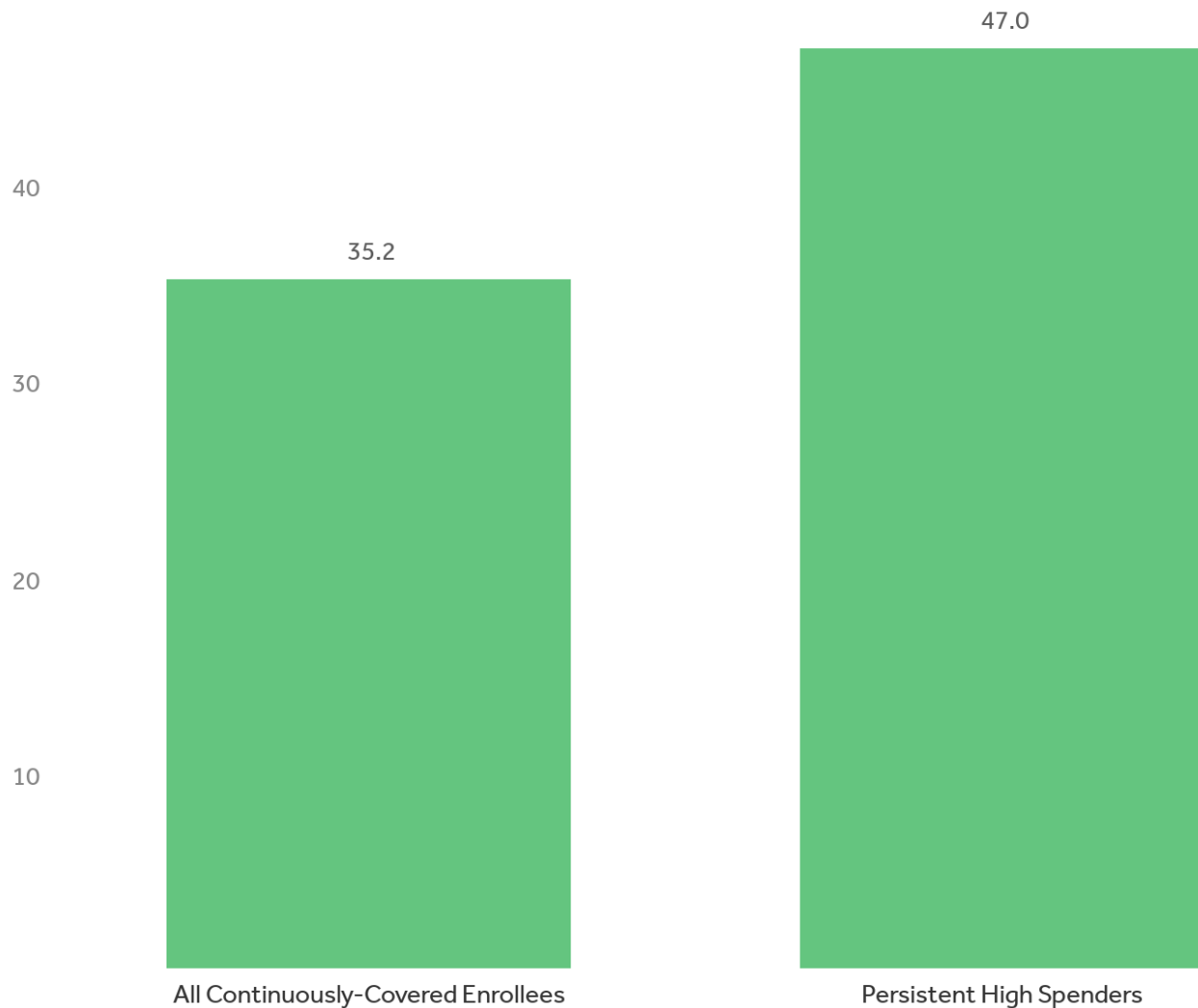
Spending on retail prescriptions comprised 39% of total spending by people with persistently high spending, a considerably higher share than for people with high spending just in the last year (9%) or for continuously covered enrollees overall (22%). This pattern, and the high amounts spent on prescriptions shown in the previous slide, show the importance of prescription medicines in treating people with chronic health conditions and ongoing care needs. While manufacturer rebates, which are not publicly known, would reduce this amount somewhat, there is no doubt that prescription drugs represent a disproportionate expense for those with persistently high spending.

In contrast, people with high spending just in the last year had a much higher share of their spending for inpatient services (44%) than those with persistently high spending (18%) or continuously covered enrollees overall (21%).

Who has persistently high spending?

People with persistently high spending are older on average

Average age among people with large employer coverage, by spending category, 2017



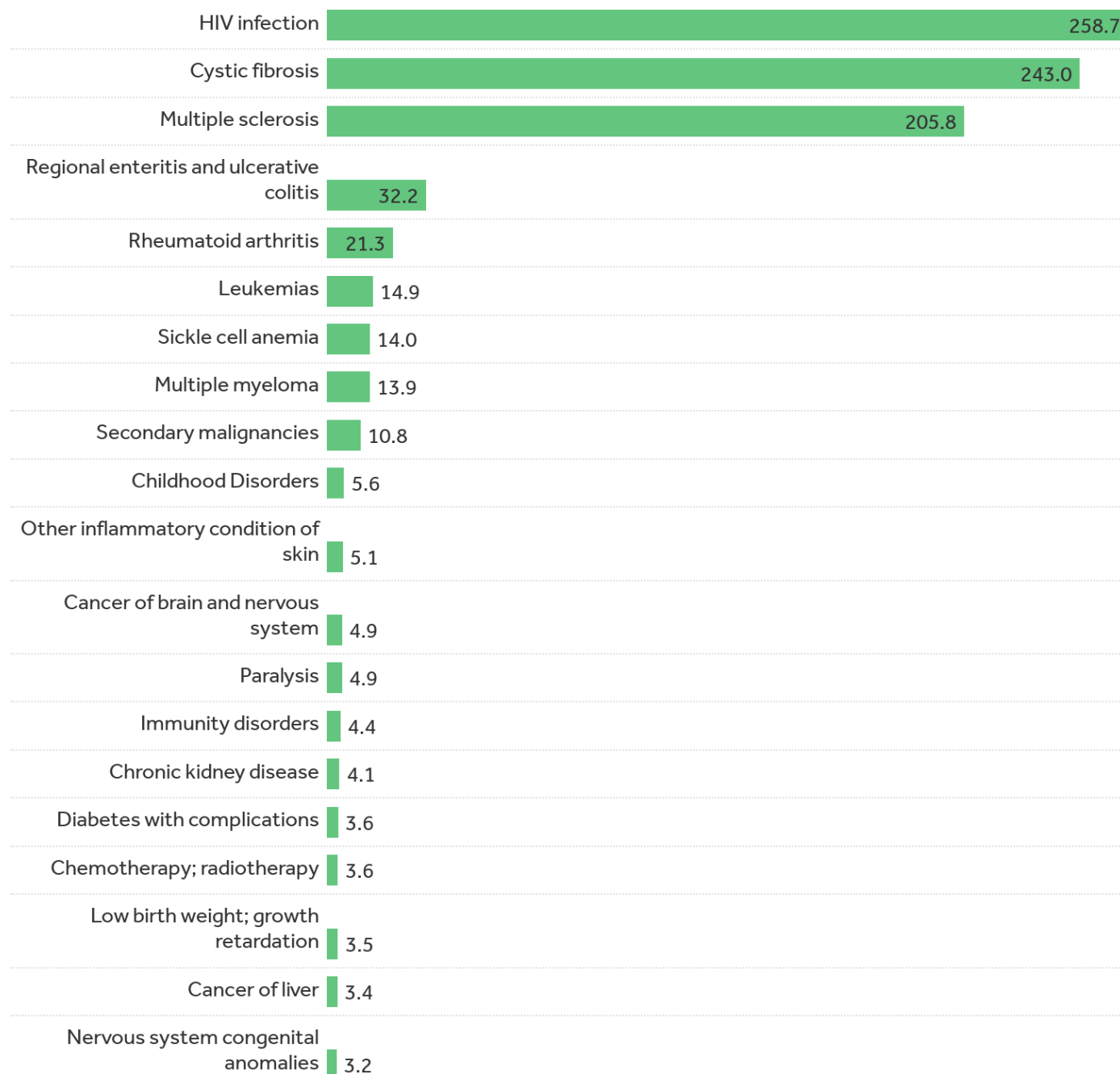
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People with persistently high spending were over a decade older, on average, than continuously covered enrollees overall. While people of all ages have chronic illnesses, they are more prevalent at older ages. Only 7% of people with persistently high spending were under age 19, as compared to about a quarter of continuously covered enrollees.

Having certain health conditions increases the chances of having persistently high spending

Relative increase in odds ratio of having persistently high spending, by condition, 2015



The odds of having persistently high spending are about 260 times higher for a person with HIV as compared to a person without HIV

We developed a logistic regression model to analyze the association between the health conditions continuously covered enrollees had in 2015 and having persistently high spending. All continuously covered enrollees were assigned to one or more of 283 distinct diagnostic categories based on the primary (first) diagnoses for any outpatient event or principal diagnosis for any inpatient admission. The chart shows the results for the conditions with the 20 highest odds ratios; the full results and an alternative specification are presented in Appendix.

The results show the increase in the odds that someone with each specified health condition in 2015 had persistently high spending as compared to the odds for someone who did not have the condition. The odds can be thought of as the probability of having persistently high spending divided by the probability of not having it. For example, the odds of having persistently high spending were about 259 times higher for a person with HIV as compared to a person without HIV, all else being equal. Cystic fibrosis and multiple sclerosis increased the odds of having persistently high spending 243 times and 206 times respectively. While these three conditions had the biggest impacts on the odds, having any of several other illnesses or conditions, such as regional enteritis and ulcerative colitis, rheumatoid arthritis, leukemia and multiple myeloma, also greatly increased the odds of having persistently high spending.

Almost 70% of people with persistently high spending have one or more of these diagnoses in 2015

Odds ratio and distribution among people with persistently high spending, by condition, 2015

Condition	Odds Ratio	Share of People with Persistently High Spending with Condition
HIV infection	258.7	7.6%
Cystic fibrosis	243.0	0.7%
Multiple sclerosis	205.8	8.4%
Regional enteritis and ulcerative colitis	32.2	8.0%
Rheumatoid arthritis	21.3	11.4%
Leukemias	14.9	1.5%
Sickle cell anemia	14.0	0.8%
Multiple myeloma	13.9	0.2%
Secondary malignancies	10.8	3.0%
Childhood Disorders	5.6	1.2%
Other inflammatory condition of skin	5.1	12.0%
Cancer of brain and nervous system	4.9	1.6%
Paralysis	4.9	0.6%
Immunity disorders	4.4	2.6%
Chronic kidney disease	4.1	5.8%
Diabetes with complications	3.6	13.3%
Chemotherapy; radiotherapy	3.6	4.2%
Low birth weight; growth retardation	3.5	0.2%
Cancer of liver	3.4	0.3%
Nervous system congenital anomalies	3.2	0.6%

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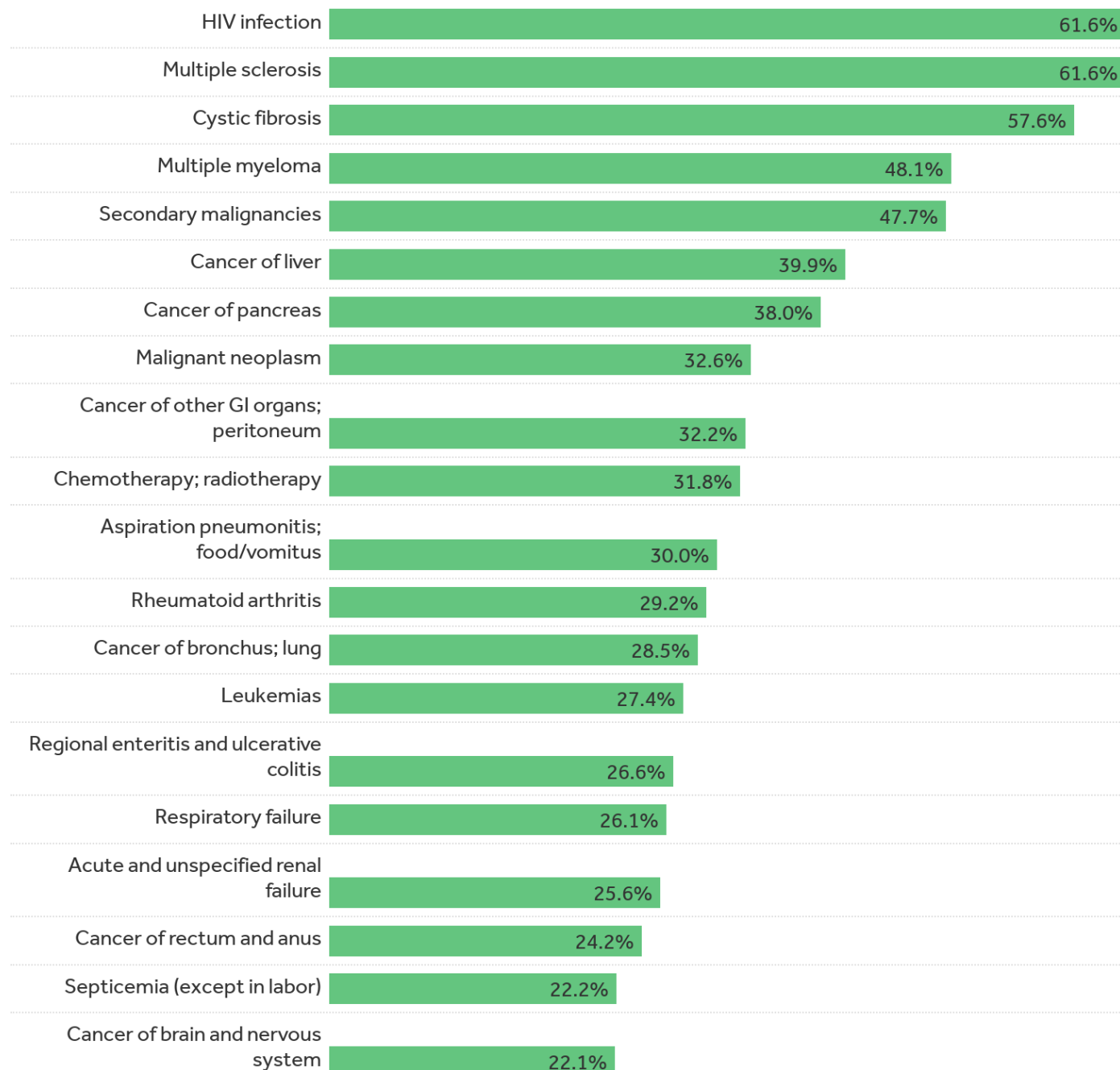
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Looking at the same 20 illnesses and conditions from the chart above, 69% of people with persistently high spending had one or more of these conditions in 2015, compared with just 6% of continuously covered enrollees overall. About 11% of those with persistently high spending had rheumatoid arthritis in 2015, 8% had HIV, and 13% had diabetes with complications. (Note the column sums to more than 69% percent because some people with persistently high spending had multiple conditions and were counted in more than one category).

That such a large share of people with persistently high spending fell into such a narrow range of disease categories helps us better understand who they are. Given their ongoing high health care need, identifying people with these (and similar) diagnoses early in their treatment and assessing the appropriateness and cost-effectiveness of their courses of care is clearly important to any efforts to improve value and lower overall spending.

Large shares of people with certain diagnoses in 2015 developed persistently high spending

Among people with specified diagnosis in 2015, percent who developed persistently high spending



Another way to look at who has persistently high spending is to focus on the share of people in each illness or condition category in 2015 who developed persistently high spending. This figure shows the 20 illnesses and condition categories with the highest share of people with persistently high spending among those diagnosed with the condition in 2015. For example, more than 60% of continuously enrolled individuals with HIV or multiple sclerosis in 2015 had persistently high spending.

One thing that stands out is the number of cancer diagnoses with a high share of people with persistently high spending. While many of these conditions are fairly rare, and most people with each of these diagnosis in 2015 do not develop persistently high spending, a quarter or more do so in each of the categories.

Discussion

Health spending is highly concentrated: a small share of people account for most health care in a year. This group changes from year to year as some people experience serious illness and recover, but a share of the group continues to have high spending for longer periods. We followed a subset of people with employer-based coverage who were continuously insured over a three-year period (2015-2017) and identified a group of people with persistently high spending whose health spending was in the top five percent in each of the three years. Overall, these people with persistently high spending comprised only 1.3% of the continuously covered subgroup but accounted for 19.5% of total spending in the final year of the period (2017). Their extensive health care need and predictably high spending make them an important focus for any efforts to improve value and quality.

While those with persistently high spending had a variety of health conditions, a large proportion had claims in the first year that for a narrow set of diagnoses, including HIV, multiple sclerosis, cystic fibrosis, rheumatoid arthritis, as well as a number of cancers. While not everyone with these conditions has persistently high spending, knowing that there are large shares with persistently high spending within these disease groups helps us better understand where some of the most significant health needs and costs are concentrated.

Compared to people with high spending just in the last year, people with persistently high spending had higher spending for prescription drugs and lower spending for inpatient services. This underscores the importance of prescription drugs in treating people with chronic illnesses as well as the fact that some of these drugs are quite costly. This is both an opportunity and a challenge. There is bipartisan support to lower prescription drug costs, including some of the very expensive drugs that may be used to treat people with complex or relatively rare diseases. At the same time, medications underpin treatment for many people with chronic illnesses, and new medicines are often the best hope for future improvements in care, and, in some cases, lowering treatment spending overall. Balancing the legitimate concern about costs with the need to encourage research and dissemination of new drug therapies is among the most important challenges facing health policy today.

Methods

We analyzed a sample of medical claims obtained from the IBM MarketScan Commercial Claims and Encounters Database (MarketScan), which contains diagnostic and claims information provided by large employer plans for several million employees and their dependents. MarketScan allows for enrollees to be tracked for their duration at one contributing employer, and we used a subset of claims for enrollees covered in each of three years, 2015 through 2017. We only included claims for people under the age of 65. Our unweighted subset contains 12,668,720 of these continuously covered enrollees, including 169,315 “people with persistently high spending” and 324,742 “people with high spending just in the last year.” People with persistently high spending had total claims spending in excess of the 95th percentile of total claims spending in each of the three years. People with high spending just in the last year had claims spending in excess of the 95th percentile of total claims spending in 2017 but not in 2015 or 2016.

The MarketScan database is a convenience sample and may not accurately represent the population of people with health benefits through large employers. To limit the impact of this bias, weights were applied to match counts from the Current Population Survey for enrollees at firms of a thousand or more by sex, age, state and whether the enrollee was a policyholder or dependent. Weights were trimmed at 8 times the interquartile range. This sample represented about 14% of the 86 million people in the large group market.

Claims data available in MarketScan allows an analysis of liabilities incurred by enrollees with some limitations. First, claims data show the retail cost for prescription drugs and do not include information about the value of rebates that may be received by payers. Rebates vary significantly by drug. Secondly, these data reflect cost sharing incurred under the benefit plan and do not include balance-billing payments that beneficiaries may make to health care providers for out-of-network services or out-of-pocket payments for non-covered services.

ICD-9 or ICD-10 diagnosis codes were used to classify 283 distinct illness and conditions. Disease classification are based on whether an enrollee received at least one primary diagnoses for any outpatient event or principal diagnosis for any inpatient admission at any point in 2015. We used the disease definitions developed by the Healthcare Cost and Utilization Project (HCUP). We modeled the association between conditions and illness and whether someone had persistently high spending using the “binomial” parameter of the glm function in R 3.6. This method applied a logistic regression, estimating the odds that a diagnosed person had persistently higher spending. We used a person’s diagnosis in 2015 for a separate model for each of the 283 conditions holding constant an enrollees’ state of residency, sex, age and whether they were the policyholder or a dependent. Conditions with fewer than 1,000 observations were excluded from the results.

Because many chronic conditions are treated with expensive drug regimens, we were concerned that not being able to account for rebates would exaggerate the effect of conditions with high drug costs and high rebate levels. Prescription drug rebates vary considerably across particular drugs and drug categories, which can affect the costs associated with the diagnoses those drugs are used to treat. To test the robustness of our coefficients, we applied a 25% reduction to all drug spending and re-specified the model. This reduction had a greater impact on enrollees with a higher share of drug spending. Both the original specification and alternate described here are available below.

All dollar values are reported in 2017 nominal dollars.

Appendix

Logistic Regression Estimates of Having Persistently High Spending, Based on 2015 Diagnosis

Condition	Unweighted Observations	Total Health Spending				Discounting Drug Spending by 25%			
		Coefficient	SE	Statistical Significance (P<.05)	Odds Ratio	Coefficient	SE	Statistical Significance (P<.05)	Odds Ratio
HIV infection	19,030	5.56	0.02	*	258.65	5.04	0.02	*	153.74
Cystic fibrosis	2,166	5.49	0.05	*	242.99	5.46	0.05	*	236.09
Multiple sclerosis	22,794	5.33	0.02	*	205.76	5.34	0.02	*	209.40
Regional enteritis and ulcerative colitis	50,737	3.47	0.01	*	32.20	3.49	0.01	*	32.80
Rheumatoid arthritis	68,436	3.06	0.01	*	21.34	3.00	0.01	*	20.01
Leukemias	9,069	2.70	0.03	*	14.88	2.77	0.03	*	15.89
Sickle cell anemia	3,360	2.64	0.06	*	14.03	2.72	0.06	*	15.23
Multiple myeloma	2,883	2.63	0.05	*	13.92	2.71	0.05	*	15.04
Secondary malignancies	10,910	2.38	0.03	*	10.84	2.43	0.03	*	11.33
Childhood Disorders	38,641	1.72	0.03	*	5.60	1.78	0.03	*	5.93
Other inflammatory condition of skin	268,965	1.63	0.01	*	5.13	1.57	0.01	*	4.79
Cancer of brain and nervous system	4,475	1.60	0.05	*	4.94	1.65	0.05	*	5.23
Paralysis	13,398	1.59	0.03	*	4.90	1.65	0.03	*	5.19
Immunity disorders	20,230	1.48	0.02	*	4.40	1.51	0.03	*	4.51
Chronic kidney disease	49,952	1.40	0.02	*	4.06	1.41	0.02	*	4.09
Diabetes with complications	256,303	1.29	0.01	*	3.64	1.11	0.01	*	3.02
Chemotherapy; radiotherapy	22,986	1.27	0.02	*	3.57	1.31	0.02	*	3.69
Low birth weight; growth retardation	5,741	1.24	0.08	*	3.47	1.17	0.08	*	3.22
Cancer of liver	1,389	1.23	0.08	*	3.42	1.18	0.09	*	3.24
Nervous system congenital anomalies	8,206	1.15	0.05	*	3.17	1.19	0.05	*	3.28

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Total Control: The House Democrats' Single-Payer Health Care Prescription

Robert E. Moffit, PhD

KEY TAKEAWAYS

Single-payer health care would establish government control over health care, requiring Americans to surrender key health care decisions to the federal government.

H.R. 1384 would outlaw virtually all private and employer-sponsored health insurance, as well as Medicare, Medicaid, and most other federal health programs.

H.R. 1384 would also impose major restrictions on patients' rights to secure health care outside the government program.

Representative Pramila Jayapal (D-WA) and 112 other House Members are sponsoring the Medicare for All Act of 2019 (H.R. 1384). The bill thus enjoys the support of almost half the entire Democratic membership of the U.S. House of Representatives, while similar Senate legislation is being co-sponsored by leading candidates for the Democratic presidential nomination.¹

The House bill, like its Senate companion—the Medicare for All Act of 2019 (S. 1129)—would confer enormous power on Washington officials, creating an authoritarian system of detailed federal control over virtually every aspect of American health care financing and delivery.² As Dr. Niran S. Al-Agba, an assistant professor at the University of Washington Medical School, and a practicing physician, explains, “Recent polls show a majority of Americans support ‘Medicare for All,’ but few seem to realize that no

This paper, in its entirety, can be found at <http://report.heritage.org/bg3423>

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other system in the world operates like the current single payer proposals in Congress.”³

The legislation would create a national health insurance program, while outlawing almost all private and employer-sponsored health insurance. It would abolish virtually all of the federal government’s existing health programs, including Medicare, Medicaid, and the Federal Employees Health Benefit Program (FEHBP). It would also impose severe restrictions on the ability of doctors and patients to engage in private agreements outside the system.

According to a complete set of 2017 data, approximately 9 percent of the Americans are uninsured.⁴ To achieve “universal coverage,” the congressional sponsors of the legislation nonetheless insist on outlawing the existing coverage of almost every other American. Only the relatively small number of enrollees in the U.S. Department of Veterans Affairs’ (VA’s) health benefits and the Indian Health Service would be allowed to keep their current coverage.

The Secretary of the U.S. Department of Health and Human Services (HHS) would be the central decision maker in the system. The Secretary would exercise enormous control over the financing and delivery of health care benefits and medical services and the availability and pricing of prescription drugs, as well as the conditions of participation and practice of doctors, nurses, and other medical professionals.

Major Consequences of “Medicare for All”

If the House bill were to become law, Americans could expect major changes to their health coverage, including:

Elimination of Existing Private and Employer-Sponsored Insurance and Coverage Plans. Under Section 107 of Title I of the House bill, it would be “unlawful” for any private health plan to offer any coverage that “duplicates” the coverage of the government health insurance program. With regard to employer-sponsored insurance, Section 801 of Title VIII, declares that “no employee benefit plan may provide benefits that duplicate payment for any items or services for which payment may be made under the Medicare for All Act of 2019.” That provision would outlaw the existing job-based health coverage of approximately 160 million Americans, regardless of whether they liked their health plans or not.⁵

Involuntary Enrollment of Medicare Beneficiaries and Other Health Program Recipients. Under Title IX of the House bill, two years after the date of enactment, all coverage ends for Medicare, Medicaid, the State Children’s Health Insurance Program (CHIP), the Tricare program

for military dependents, the FEHBP, and the health insurance plans created under the Affordable Care Act (ACA) of 2010. As noted, only the VA and Indian Health Service programs (with a combined enrollment of just 9.9 million) would remain.

New Restrictions on Independent Doctor–Patient Agreements. The House bill would restrict the rights of doctors and patients to contract privately for medical services outside the national health insurance program. For physicians who “participate” in the program, there would be a financial penalty for entering into a private contract with a patient: The doctor would have to refrain from treating any other patient enrolled in the program for one full year. A tiny number of physicians might be able to sustain a private, independent medical practice; the vast majority of doctors could not. As Dr. Adam Gaffney, president of Physicians for a National Health Insurance Program, admits: “Whether there’s someone out in Beverly Hills who sees the stars and doesn’t partake—that would be possible. The way the whole program is structured is really to make it such that that’s a very insignificant overall phenomenon.”⁶ Escaping the system would be the prerogative only of well-situated elites.

Compulsory Taxpayer Funding of Abortion. According to Section 201 of Title II, the bill provides coverage for “comprehensive, reproductive, maternity and newborn care.” As *Politico* reports, “Though the word ‘abortion’ does not appear anywhere in the text, its authors have confirmed that it’s covered.”⁷ The House bill also creates a Universal Medicare Trust Fund for the disbursement of all program funds, including provider reimbursements. Under Section 701 of Title VII, “Any other provision of law in effect on the date of enactment of this Act restricting the use of Federal funds for any reproductive health services shall not apply to monies in the Trust Fund.”⁸ In other words, the House bill would effectively nullify the Hyde Amendment and all other legislative restrictions on the use of federal funds for abortion.

Aside from reversing decades of federal policy restricting the use of taxpayer money for abortion, Section 103 of Title I specifies that no person can be “denied the benefits” of the program, and section 301 of Title III mandates that services are to be “furnished by the provider without discrimination.” In short, the bill would apparently override the ethical objections of medical professionals who do not want to participate in abortion.⁹

Mysterious Financing and the Imposition of Large and Unknown Costs. Neither the Congressional Budget Office (CBO) nor the Office of the Actuary at the Centers for Medicare and Medicaid Services (CMS) have released any cost analysis or budget estimates of either the House or Senate “Medicare for All” bills.

The House bill has no financing provisions, a notable departure from the earlier version of the House bill, H.R. 676.¹⁰ Senator Bernie Sanders' (I-VT) bill also has no financing provisions. Like Senator Sanders, Representative Jayapal, however, has said that she would release a separate list of "potential taxes" to finance the program.¹¹ The congresswoman has not yet released such a list.

Focusing on Senator Sanders' broadly similar Senate plan, analysts from the Urban Institute and the Mercatus Center have previously estimated that the 10-year additional cost to federal taxpayers would be approximately \$32 trillion. In recent congressional testimony, Charles Blahous of the Mercatus Center and a former trustee of the Medicare program, noted that, based on his previous analysis of the Senate bill, the additional federal costs of Medicare for All could be as much as \$38.8 trillion; and the total costs of health care—including the costs currently incurred by Medicare and Medicaid and other government and private health programs—could range between \$54.6 trillion and \$60.7 trillion over the first 10 years.¹² The addition of long-term care coverage to the House bill—a cost not included in Blahous's initial estimates—would mean that total costs of the most recent versions of the House and Senate bills would be higher.¹³ As Blahous further noted: "We have no experience with enacting federal cost assumptions of this magnitude, which renders these numbers especially difficult for many to conceptualize."¹⁴

Thus far, the true cost of the legislation remains an elusive target of sophisticated guesswork. As noted, the CBO has not yet released a cost or tax estimate of the House bill, or of its Senate counterpart. Based on a variety of previous estimates of the Senate bill, however, aggregate federal spending would surely double, at the very least, along with the enormous taxes to sustain the program. Contrary to the claims of its champions, it is also unlikely that Medicare for All would yield significant overall savings.¹⁵

Displaced Workers and Families. Because the House bill would eliminate virtually all existing private health insurance, Representative Jayapal, the chief sponsor of the House bill, has conceded that the enactment of the legislation would cause an estimated 1 million health insurance workers nationwide to lose their jobs. To compensate, the bill would provide funding for a new program for displaced insurance industry workers and their families. Displaced workers would be able to receive financial assistance for up to five years following the date of the enactment of the act. The special assistance for the newly unemployed health insurance workers would compensate them for lost wages and retirement, as well as provide for job training and education benefits.¹⁶

However, the economic impact of the abolition of all private health insurance, as well as the anticipated government payment reductions to doctors, hospitals, and medical professionals, could be severe.¹⁷ Moreover, the legislation would not only affect insurance company employees negatively, but also those engaged in ancillary services.

The Creation of a National Health Insurance Program

The House bill would create a “national health insurance program to provide comprehensive protection against the costs of health care and health related services, in accordance with the standards specified in, or established under, this Act.”¹⁸ All people living in the U.S.—regardless of their legal status—would be eligible for the program.¹⁹ According to the CBO, based on 2018 data, this would include an estimated 11 million people.²⁰ To deter migration for additional enrollment, the bill provides: “In regulating such eligibility, the Secretary shall ensure that individuals are not allowed to travel to the United States for the sole purpose of obtaining health care items and services provided under the program established under this Act.”²¹

The Secretary “shall” also provide a “mechanism” for enrollment, including automatic enrollment at the time of birth and upon the establishment of residency in the United States. In all cases, the beneficiaries are to be issued a “Universal Medicare card.”²²

Universal Enrollment. Under Title I, Section 101, of the House bill, the HHS Secretary would be required to issue regulations for determining U.S. residency, and thus eligibility, for the program. The purpose of the bill is to ensure that “every person in the United States has access to health care.”²³

Under Section 103, the bill would establish “freedom of choice,” meaning that an “eligible” person would be able to secure benefits and services from any “institution, agency or individual ‘qualified’ to participate under this Act.”²⁴

Under Section 104, the bill would forbid discrimination or the denial of medical benefits, items, or services to any resident of the United States. “Discrimination” would not only encompass discrimination based on race, sex, religion, or national origin, but also, “sex stereotyping, gender identity, sexual orientation, and pregnancy and related medical conditions (including the termination of pregnancy).”²⁵

The House bill further provides that any person claiming to be a victim of discrimination would have a right to present a grievance through administrative channels, under procedures to be established by the Secretary, as well as a right of action in federal courts. The text makes clear that nothing

in the new language of the bill concerning discrimination is to be construed in such a way as to invalidate the existing rights of persons who claim grievances under Section 1557 of the ACA, the Civil Rights Act of 1964, or any state laws that provide additional protections to persons claiming to be victims of discrimination.²⁶

The Elimination of Existing Health Insurance

In creating a national health insurance program, the House bill would effectively eliminate almost all existing health insurance coverage, whether delivered by third-party payers in the public or the private sector. Such legislation would thus impact approximately 246.5 million Americans under the age of 65 with health insurance, as well as nearly 59 million Medicare beneficiaries.²⁷

According to Section 107 of Title I, it “shall be unlawful for (1) a private health insurer to sell health insurance coverage that duplicates the benefits provided under this Act; or (2) an employer to provide benefits for an employee, former employee, or the dependent of an employee of former employees that duplicate the benefits provided under this Act.”²⁸

Under Section 801, the bill prohibits employers from offering health insurance that provides benefits or services included in the government plan: “[N]o employee benefit plan may provide benefits that duplicate payment for any item or service for which payment may be made under the Medicare for All Act of 2019.”²⁹

Under Section 901, two years after the enactment of the legislation, the bill would abolish almost all major health care programs: Medicare, Medicaid, CHIP, Tricare, and the FEHBP. Under Section 701, on January 1 of the first year after the bill’s enactment, the annual aggregate funding for these major government health programs would be transferred to a new federal trust fund: the Universal Medicare Trust Fund.

Under Section 902, two years after the legislation’s enactment, all coverage for persons enrolled in any health plan being offered through the ACA’s health insurance exchanges would also be terminated.

The Universal Medicare Trust Fund would also absorb projected funding for the maternal and child health care program created under Title V of the Social Security Act, and the vocational, and rehabilitation and mental health services programs established under the Public Health Service Act. The new trust fund would also get funding transfers from “any other program” identified by the HHS Secretary in consultation with the Secretary of the Treasury.³⁰

These provisions are not only a radical and unprecedented restriction on the right of Americans to purchase their own health care coverage—they are also a dramatic departure from the practice of most other nations with “universal coverage.”³¹ As CBO analysts observe: “Some people might prefer to enroll in a substitutive insurance plan that suited their needs better than the public plan. Substitutive insurance might also improve the quality of care for people in both private and public plans.”³²

The Federal Standardization of Health Benefits and Services

The House bill would provide 14 categories of health care benefits and medical services, including long-term care services and supports (LTSS). Though this is a comprehensive health benefits package, the Secretary is to review and evaluate these benefits and services at least annually, and make recommendations to Congress on proposed changes to the federal government’s benefit offerings. The Secretary is to provide for medical services that are “medically necessary” and appropriate,³³ and conduct reviews and evaluations in light of emerging information related to changes in medical practice or advances in medical science and technology.

Congress, of course, would ultimately determine which medical benefits and services all Americans would receive in the government health program. The bill specifies that the House Energy and Commerce Committee and the House Ways and Means Committee would be required to receive the Secretary’s benefit recommendations and hold annual hearings on these recommendations. For both major congressional committees, these procedural requirements would be enacted as a rule of the House of Representatives, and, in the event of a conflict with other rules, this health policy rule would supersede any other rule of the House of Representatives.³⁴

In preparing benefit recommendations, the Secretary is to consult with the Director of the National Center for Complementary and Integrative Health of the CMS, the Commissioner of the Food and Drug Administration, as well as “research institutions,” “nationally recognized” specialists in complementary and integrative medicine, and other experts. State officials could also mandate the addition of medical benefits and services for their residents, but only at the expense of their own state taxpayers.³⁵

Following the practice of current Medicare law, the Secretary is required to make “national coverage determinations” for new or “experimental” medical items and services, and establish an appeals process to adjudicate the HHS coverage decisions.³⁶

TEXT BOX 1

Benefit Categories Under the Medicare for All Act of 2019

H.R. 1384, Title II, Section 201, specifies the following categories that would be covered under federal law:

- Hospital services, including inpatient and outpatient care, emergency services, and inpatient prescription drugs;
- Ambulatory patient services;
- Primary and preventive care services, including chronic disease management;
- Prescription drugs and medical devices, including outpatient prescription drugs, medical devices, and biological products;
- Mental health and substance abuse treatment, including inpatient care;
- Laboratory and diagnostic services;
- Comprehensive reproductive, maternity, and newborn care;
- Pediatrics;
- Oral health, audiology, and vision services;
- Rehabilitation and habilitation services and devices;
- Emergency services and transportation;
- Early and periodic screening, diagnostic, and treatment services;
- Necessary transportation to hospitals or clinics for persons with disabilities and low-income individuals (as determined by the HHS Secretary); and
- Long-term care services and supports.

Likewise, the bill authorizes the Secretary to establish medical practice guidelines to govern the delivery of medical services. The language of the bill specifies, however, that in the event that a doctor or medical professional determines that it would be necessary to override these guidelines, the provider may do so, provided that the practitioner’s “best judgement” is in accord with state law, is “medically necessary” and appropriate, and accords with the “best interest” of the patient or the patient’s wishes. Based on these considerations, the actions of the doctor or medical professional would be deemed to be in accordance with the federal practice guidelines authorized under the government’s national health insurance program.³⁷

No Cost Sharing. The House bill would guarantee U.S. residents that their care would be “free” at the point of service. The legislation would thus prevent any doctor or other medical professional from levying any charge over and above the government payment for a medical benefit or service. The bill would also outlaw cost sharing in the government health insurance program. Under Section 202, the Secretary “shall ensure that no cost sharing, including deductibles, coinsurance, copayments or similar charges, is imposed on an individual for any benefits provided under this Act.” This

provision is not only a major departure from current federal health policy; it is also very different from the common practice of other nations with “universal” health care systems.³⁸

Aside from private health insurance, major federal health programs, such as traditional Medicare, Medicare Advantage, the Medicare Part D prescription drug program, and the FEHBP, deploy cost-sharing strategies to constrain excessive use and contain health care costs. While zeroing out up-front patient costs would secure “free” care at the point of service, it would also guarantee that the total cost of health care would be much higher at the back end, thus sharply increasing the financial burden on patients as federal taxpayers. As CBO analysts observe, “[E]xisting evidence indicates that people use more care when the cost is lower, so little or no cost sharing in a single payer system would tend to increase the use of services and lead to additional health spending, as well as more government spending.”³⁹

Long-term Care. The House bill would provide a comprehensive set of long-term care services and supports. The Secretary would be required to issue eligibility rules for U.S. residents who suffer from medical conditions related to aging, physical or mental disabilities (“cognitive or other impairments”) that result in “functional limitations” in performing the “activities of daily living,” or need assistance in performing “instrumental activities of daily living.”⁴⁰

In administering the new federal long-term care benefit, the Secretary is authorized to establish standards for nine categories of care. This care, however, is to be “tailored to an individual’s needs.”⁴¹ The statutory language is quite specific with respect to the standards of care. The Secretary must promulgate standards that meet the patients’ “physical, mental and social needs,” provide the “maximum possible autonomy,” and secure the “maximum possible civic, social and economic participation.”⁴²

In developing long-term care regulations, the Secretary is to consult with a special advisory commission comprised of a specified set of “stakeholders,” including people with disabilities, disability organizations, groups that represent the “gender, racial and economic” diversity of the nation’s disabled population, as well as representatives of the “provider community,” organized labor, policy experts, and “relevant” academic and research institutions.⁴³

Adding the long-term care services and supports to the government’s health insurance program, along with three other benefit categories, would require a significantly larger budgetary commitment than previous iterations of “Medicare for All” legislation.⁴⁴ The CBO reports that in 2016 alone, the total spending—mostly government spending—for long-term care amounted to \$366 billion.⁴⁵ As CBO analysts further observe:

Public spending would increase substantially relative to current spending if everyone received LTSS benefits. Under the current system, many people receive Medicaid benefits for such services, but use their own funds to pay for LTSS before they qualify for Medicaid; state Medicaid programs currently pay about half the cost of such services. Private insurance accounts for a small portion of LTSS spending. Under a single payer system, government payments could replace payments by individuals and private insurance.⁴⁶

CBO analysts also note that most of the financial support for persons needing assistance with activities of daily living comes from the financial contributions and the unpaid care from family, relatives, and friends of the patients. With the creation of a universal entitlement to long-term care, there would be a major cost shift from families providing “informal care,” as well as existing private and insurance payment, to the public sector. This is particularly true if the government health insurance program covers both home-based and community-based care.⁴⁷ The House bill includes both home-based and community-based care categories.⁴⁸

RAND Corporation analysts estimate that about half of the “informal” care of family and friends would shift to “formal” care, and they project that there would be a 200 percent increase in formal-home-care cost and a 10 percent increase in nursing-home cost.⁴⁹

New Regulations for Physicians and Other Medical Professionals

Physicians and other medical professionals often complain about the imposition of administrative and paperwork burdens—the hassle factor—that accompany complex third-party payment systems in both the public and the private sector. These burdens, particularly compliance and reporting requirements, are often demoralizing and among the chief causes of widely reported American physicians’ “burn-out” and the accelerated practitioner retirements contributing to the nation’s physician shortages.⁵⁰ Based on the worsening conditions in Britain’s National Health Service (NHS), the proposition that a single-payer system would somehow remove such burdens is unsupported by the empirical evidence.⁵¹

The House bill would, in fact, create a large and formidable regulatory regime. It would not only establish rigorous conditions of provider participation and reporting requirements, but also tightly control the character and scope of medical practice.

Provider Agreements. Today, state agencies and professional organizations have the primary responsibility for establishing licensing and

standards of practice for physicians and specialists, as well as for the licensing and scope of practice rules for other medical professionals, such as nurses, nurse practitioners, dental assistants, and a wide variety of other health care workers. Under the House bill, doctors, nurses, and other medical professionals would also be required to meet new standards of qualification for practice in the government health insurance system, and accept and abide by the terms and conditions of medical practice, including federal practice guidelines such as new federal restrictions on their ability to provide medical services even outside the national program. The statutory text clarifies that medical professionals must not only meet the existing terms and conditions required under the current Medicare law, but that they would also have to sign a special “participation agreement” and file it with the HHS Secretary.

Under that legal arrangement, physicians and other medical professionals would have to agree to a number of conditions. They would have to acknowledge their responsibility to provide the medical benefits, items, and services available under the government program; agree to the full range of “non-discrimination” requirements specified in the legislation; levy no charge for any covered item or service above the amount reimbursed by the federal government; and submit any “such information” that the HHS Secretary may require in his or her efforts to secure the quality of care, as established under the federal government’s standards. Physicians and other medical professionals must also agree to submit billing or payment records, or any statistical data being gathered by the federal government, for “such other purposes” as the Secretary may require in the course of administering the program.⁵²

The bill requires doctors, hospitals, and all other medical professionals receiving government payment to submit paperwork concerning reimbursement within 30 days of providing the covered items or services.⁵³ On a quarterly basis, these “providers” must also comply with reporting requirements concerning conflicts of interest, as required by regulation. Giving proper notice, the Secretary can terminate a “provider participation agreement” if the physician or another medical professional fails to comply with the statutory or regulatory requirements of the Act, or due to a violation of the Act’s fraud and abuse provisions.

The bill includes language designed to protect “whistleblowers.” Doctors and hospital officials would be protected from unlawful terminations, such as terminations related to their cooperation with federal or state law enforcement officials, testifying before legislative committees concerning violations of the provisions of the Act, or refusing to violate the Act

or refusing to participate in efforts to violate the provisions of the Act. Beyond doctors, hospital officials, or other medical professionals, these protections would also apply to their employees. All such persons would enjoy the “anti-retaliation” protections of the Federal False Claims Act or similar protections embodied in federal or state laws. Moreover, all such persons would also have a right of action in federal courts.

Federal Quality Standards. A “qualified” provider, according to the bill, is a doctor, nurse, specialist, or other medical professional who is qualified to deliver “items and services” provided under the act if the provider is licensed or certified in the state in which he or she practices, and fulfills the requirements of federal and state law in providing these items and services.

The House bill provides that the Secretary “shall establish and update ‘minimum’ standards for all providers”—doctors and other medical professionals, as well as hospitals and other “institutional” providers—to “ensure the quality of items and services” delivered under the government health insurance program. Within their jurisdiction, however, states can impose additional quality standards.⁵⁴

The basic quality standards for the government program would be the standards of quality already required in current Medicare law. This would include standards governing the adequacy of institutions to deliver care, staffing requirements, standards governing the training and competence of health care staff, the comprehensiveness and continuity of medical services, patient waiting times, and access to services, as well as medical outcomes.⁵⁵

The Center for Clinical Standards and Quality, an office of the CMS, would be required to develop quality measures and standards in “coordination” with the Agency for Healthcare Research and Quality, an HHS office. The Center would be the central agency to “review and evaluate” medical practice guidelines and performance measures for physicians and other medical professionals. The center staff would undertake methodological analyses and develop criteria that regional directors of the program could employ for their own internal regional reviews of quality performance. On an annual basis, the Center would also submit reports to the Secretary on medical outcomes and practice guidelines.⁵⁶

The Center for Clinical Standards and Quality would also be required to address the problem of health care disparities, and, in pursuit of this effort, collect relevant data on race, ethnicity, and gender, as well as geographic and socioeconomic data. The center would be required to prepare a report and make policy recommendations to address these disparities within 18 months of the enactment of the act. Thereafter, the center would be required to submit a report to Congress on these issues every four years.⁵⁷

Restrictions on Private Payment. The House bill would severely restrict Americans' ability to spend their own money to pay a doctor for medical services outside the government program. A personal right to contract with a doctor would depend on whether a doctor is participating or nonparticipating, whether the medical service is covered or non-covered, and whether the patient is eligible to receive reimbursed services under the government program.

According to Section 303 of Title III: "An institutional or individual provider with an agreement in effect under Section 301 may *not* bill or enter into any private contract with *any* individual eligible for benefits under the Act for *any* item or service that is a benefit under this Act."⁵⁸ (Emphasis added.)

For that small number of "non-covered" benefits and services, the House bill specifies that a "participating" doctor would be able to enter into a private contract with a patient "eligible" for government benefits.

But there are crucial limiting conditions: The doctor could not get *any* payment (either "directly or indirectly") from *any* organization that also gets government payment for the government's benefits and services. Moreover, *any* doctor contracting privately with a patient for "non-covered" services must sign an affidavit to that effect and file it with the Secretary of HHS within 10 days of the contract.⁵⁹

The House bill, however, would permit "non-participating" providers—that is, doctors and other practitioners who have *not* signed an agreement to participate in the program—to contract privately for "non-covered" services with any individual. If, however, a "non-participating" provider were to contract privately with patients enrolled in the government's "covered" medical services, the House bill prescribes detailed terms and conditions of the contract: The private contract must be in writing, signed by the parties, entered into outside an "emergency situation"; and the patient must acknowledge that the government program will not pay or cap the costs of these privately delivered services. The "non-participating" doctors must also file an affidavit that they entered into such a private contract with their patients and file it with the HHS Secretary within 10 days of the contractual agreement. Concerning this required affidavit, the text states that "the provider will not submit *any* claim for *any* covered item or service provided to *any* individual enrolled under this Act during the 2-year period beginning on the date the affidavit is signed."⁶⁰ (Emphases added.) In short, the bill contains a "lock-out" clause.

These proposed congressional restrictions—not only on the right to purchase private health insurance, but also to secure private medical care—are far more severe than those imposed by the British socialists who created the

British National Health Service in 1948. Today, not only are British citizens free to enroll in private health plans, they are also free to engage privately the services of British doctors, even though these doctors also practice in the NHS.⁶¹ Because of significantly longer NHS waiting times, according to the *British Medical Journal*, British patients are increasingly relying on private medical services.⁶²

Central Planning: How Washington Would Run the Program

The Secretary is required to develop policies, procedures, guidelines, and regulatory requirements to implement the national health law. The scope of the Secretary's administrative authority would be very broad. The Secretary's regulatory penetration into the details of care delivery would be very deep.⁶³

Scope of Control. The Secretary's broad range of authority would cover the program's eligibility and enrollment; adding or modifying health benefits and services; developing or implementing standards for provider participation and standards for the quality of care; preparing the national health care budget; developing and implementing new payment methodologies; establishing processes and procedures for addressing grievances and appeals; planning for capital expenditures and professional education funding; working in coordination with state officials concerning regional planning; and issuing "any other regulation necessary to carry out the purposes of the Act."⁶⁴

In carrying out this vast range of administrative responsibilities, the Secretary would be required to consult with a wide variety of entities and organizations, including federal officials in other agencies that have health policy responsibilities, Indian tribes, professional organizations, representatives of organized labor, and academic experts or specialists in health care policy.

National Database. As noted, the purpose of the bill is to ensure that "every person" residing in the United States has access to health care. The bill thus reads: "The Secretary shall have the obligation to ensure the timely and accessible provision of items and services that all eligible individuals are entitled to under this Act."⁶⁵

Such a task would require comprehensive data collection. Therefore, the Secretary would establish "uniform" reporting requirements for a national database. The database would contain information on the provision of medical items and services, information on the costs and quality of these services, and the "equity of health" among various population groups.⁶⁶ In

the process of gathering this large body of data, the Secretary would also be responsible for protecting the privacy of patients and collecting information without imposing an undue burden on medical professionals.

Within two years of the date of enactment, the Secretary must report to Congress on the implementation of the national health insurance program, including progress on enrollment; the provision of benefits; health costs, including per capita costs; and the financing of the program. The report must also address the issues of cost containment, quality assurance, health status of Americans, and any problem that the Secretary encountered in implementing the law, as well as recommendations for program improvement. The Comptroller General of the United States would also be required to conduct an audit of the program and submit a report to Congress every five years.⁶⁷

Regional Administrators. The House bill would create a pyramidal system of program management. The Secretary “shall” establish regional program offices to administer the program, incorporating wherever “feasible” the existing system of regional organization established under the current Medicare program and managed by the CMS. The Secretary would appoint the regional directors, and they, in turn, would appoint deputy regional directors to represent Native American tribes, as appropriate, in any given region of the country.

The regional directors would present the Secretary with an annual report on the health needs of the region, make recommendations for the regional reimbursement of doctors and other practitioners, and establish a quality assurance program to oversee care delivery for residents of the region. The regional directors would also monitor providers to “minimize both underutilization and overutilization” of medical items and services.⁶⁸

The Secretary would also appoint a Beneficiary Ombudsman to help enrollees who have complaints or grievances resolve them. The ombudsman would report to Congress annually and would identify for Congress any systemic problems with the program that should be resolved, including any problems with coverage of benefits or services or payment issues.

Establishing a Global Health Care Budget

Under the House bill, the HHS Secretary would establish a “national health budget” by September 1 of each year. This is commonly referred to as a “global budget,” which is an arrangement whereby medical institutions, such as hospitals or clinics, and medical professionals, such as doctors, nurses, and other medical professionals, get a fixed payment, usually on an annual basis.⁶⁹

Under the House bill, the budget would contain the Secretary's estimate of what level of federal spending would be necessary to administer the national health insurance program, including the program's operating expenses, capital expenditures, and funding for the program's "special projects." The budget would also outline the necessary expenditures for other categories, including quality assessment, professional education, administrative costs, prevention initiatives, and a "reserve fund," which would anticipate the need for public spending to cope with epidemics, pandemics, or other unforeseen national emergencies.⁷⁰

Regional Budget Allocations. The Secretary would allocate the budget for program administration in each of the program's regional offices. These regional budget allotments would be used to cover the regular operational expenses of the program, such as payment to doctors and hospitals. The regional budgets would also cover capital expenditures for the construction and renovation of hospitals and other medical facilities, and, of course, special projects, such as the funding needed to staff medically underserved areas with the appropriate kind and level of medical personnel.

Annual payment to "institutional providers"—such as hospitals, skilled nursing facilities, and medical clinics—would be in the form of lump-sum payments for providing the program's approved medical items and services. Regional directors, however, would be responsible for reviewing the performance of these providers and determining whether their payments should be adjusted, particularly in the case of unforeseen costs or the emergence of unforeseen or complex medical challenges. Group medical practices would be paid under the regional budget directly, or through the global budget allocated to "institutional" providers, such as hospitals or other medical institutions.

Negotiated Rates. The regional directors would "negotiate" payment amounts with providers annually. The providers' negotiated rates would factor in the historical volume of services, the actual spending from the most recent costs, the levels of comparative spending and payment rates of other providers, volume projections, and wage levels. Negotiated rates would also reflect the spending on education and prevention programs. Payments to institutional providers, such as hospitals, could not factor in capital expenditures or be used or diverted for capital expenditures.

Resurgent Fee-for-Service (FFS). For individual providers, such as physicians and medical specialists, who are not paid a salary, or are paid through a government negotiated group practice payment rate, the Secretary would be required to pay them on an FFS basis. Under the terms of the program, these payments would be payments in full; and no physician,

specialist or other “individual provider” would be able to charge any amount above the government’s FFS payment.

The House bill would require the Secretary to establish this new FFS system within one year of the enactment of the program. The system would be updated annually and would be operationalized with a system of electronic billing. In developing the new FFS system, the Secretary would be required to “take into account” the existing Medicare payment rates for medical items and services, the medical practitioners’ “expertise” in providing the services, and the “value” of these medical items and services.⁷¹

In determining the “value” of services for patients, the House bill imposes certain limitations. Payments could not be made to reflect any provider’s marketing expenses (such as advertising her medical services) or a provider’s profits or bonuses based on “patient utilization” of medical items and services. The bill also includes a clear prohibition: “The use of Quality Adjusted Life Years, Disability Adjusted Life years, or other similar mechanisms that discriminate against people with disabilities is prohibited for use in any value or cost-effectiveness assessments.”⁷²

Government officials would determine “value” for all provider payments in the program. Under Section 613 of the House bill, the Secretary is to establish a process to review the “relative values of physicians’ services,” and provide a written description of the review process that would be used to determine the “value” of physicians’ services. The House bill specifies that this review would take place annually, in consultation with the existing Medicare Payment Advisory Commission (MedPAC), the panel that advises Congress on reimbursement for Medicare physicians and participating hospitals. The Comptroller General of the United States would also be required to conduct a “periodic” audit of this exercise.

The House bill would “terminate” certain physician payment programs created under the Medicare Access and CHIP Reauthorization Act of 2015: the Merit-Based Incentive System, the alternative payment models, and the incentive program for “meaningful use” of electronic health records. It would also eliminate key payment and delivery-reform programs created under the 2010 ACA: the “value-based” purchasing provisions for hospitals, nursing homes, and home health agencies, as well as the accountable care organizations, the hospital readmission reduction program, and the “value-based” purchasing program for ambulatory surgical centers.⁷³

Capital Expenditures. The Secretary is to pay providers such “sums deemed appropriate” for the funding of capital projects. The bill would require the Secretary to give priority to capital projects in “medically

underserved” areas, or to address health disparities among racial, ethnic, or socioeconomic classes that suffer from such disparities. Also, under the terms of the bill, if a “non-governmental” agent funds a capital project, and that funding would lead to a reduction in patient care, health care staffing, or the availability of primary care, there would be a consequence: Federal funds would be disallowed for that capital project.⁷⁴

The House bill would also prohibit the use of federal funds for capital projects financed by charitable donations in any region without the specific approval of the regional director.⁷⁵ In no case would “providers” be permitted to co-mingle capital and operating funds.

Prescription Drug Payment. On a yearly basis, the Secretary must “negotiate” the prices for drugs, medical supplies, technologies, and devices. In negotiating these prices, the Secretary is to “take into account” several factors: the comparative clinical and cost effectiveness of these items, the impact of government payment on the program’s budget, the treatment alternatives available, and, in the case of drugs, the manufacturers’ total revenues, sales, and investment data.⁷⁶

If the Secretary is unsuccessful in negotiating a price for a particular drug, notwithstanding all other federal laws, the Secretary must cancel the manufacturer’s patent exclusivity, and “shall authorize the use of any patent, clinical trial data or other exclusivity granted by the Federal Government with respect to such drug as the Secretary determines appropriate for purposes of manufacturing such drug for sale under the Medicare for All Program.”⁷⁷

If the Secretary were to take such a strong action against a drug manufacturer, the manufacturer would be entitled to “reasonable compensation” for these losses based on the “risk-adjusted” value of any federal subsidies and the manufacturer’s investment in the development of the drug. The compensation would also reflect the impact of the drug on prices and health benefits, and “other relevant factors determined as appropriate by the Secretary to provide reasonable compensation.”⁷⁸ The bill would also allow the drug manufacturer to “seek recovery” of such losses by filing suit against the United States in the United States Court of Federal Claims.

Before negotiation and until one year after drug approval by the U.S. Food and Drug Administration, the federal government would pay the average price of the drug in the 10 countries of the Organization for Economic Co-operation and Development with the largest gross domestic product and a per capita income of “not less than half the per capita income” of the United States. The bill would also authorize the Secretary to procure a drug directly from the manufacturer.⁷⁹

Many champions of “single-payer” proposals believe that such one-sided government “negotiations” would secure significantly lower drug costs and overall health care savings without adverse consequences. As Blahous warns, however:

There are hard limits on the potential savings that can arise from such a provision because prescription drugs account for just 10 percent of total national health expenditures, and generics already make up 85 percent of all prescription drugs sold. Nevertheless, the lower bound estimates employ aggressive assumptions for prescription drug cost savings, specifically an immediate 12 percent reduction in prescription drug expenditures, without attempting to model potential adverse effects of this reduction on the pharmaceutical industry or the pace of innovation.⁸⁰

Commanding a Fast-Track Transition

The House bill provides for the creation of a transitional government health program, and the universal availability of health benefits and services, no more than two years after the date of enactment.⁸¹ The Secretary must establish a Medicare Transition Buy-In program, run by the CMS Administrator. The plan would function as an alternative health plan in the ACA’s health insurance exchanges nationwide. While the initial enrollments would be among those ages 55 and older, or ages 18 and younger, anyone living in the United States would be entitled to the benefits of the transitional program, assuming the person meets the Secretary’s eligibility determinations.⁸² During this two-year transition, the Secretary would also be required to consult with “interested parties,” including groups representing “providers,” beneficiaries, employers, and insurers.

The transitional program would comply with all of the ACA’s existing insurance requirements, including benefit requirements. The program’s benefit offerings must also have an actuarial value of 90 percent, meaning that the plan would pay 90 percent of the total average costs for the covered benefits.⁸³ The actuarial value of 90 percent is the highest level of health plan coverage (“platinum” level) in the ACA’s health insurance exchanges. It would be significantly “richer” than the actuarial value of the rest of the ACA plans, such as the “bronze”-level plans (60 percent), “silver”-level plans (70 percent), and “gold”-level plans (80 percent).

The transitional program would reimburse doctors, hospitals, and other medical professionals and facilities on a FFS basis, while the Secretary would negotiate the drug prices with the drug manufacturers. The bill also

imposes a mandate on providers: Participating “providers” in the Medicare program must be participating providers in the Medicare Transition Buy-In program.⁸⁴ The Secretary would establish a “process” to allow other providers to participate.

The CMS Administrator would set the temporary program’s beneficiary premiums, and these premiums could vary by single or family coverage and tobacco use, but not on the basis of geography. Beneficiaries in the program would also be eligible for more generous federal premium and cost-sharing subsidies.

The premium tax credits for the temporary program would be available for persons with annual incomes in excess of the ACA’s cap of 400 percent of the federal poverty level, or \$103,000 for a family of four.⁸⁵ For persons in states that have *not* expanded Medicaid, under the terms of the ACA, these federal subsidies would also be available to persons below 100 percent of the federal poverty level.⁸⁶

In the meantime, the House bill would eliminate the 24-month waiting period for Medicare enrollment for persons with disabilities and ensure the continuity of coverage and care for persons with health insurance, including persons with group health insurance coverage.

A Tight Timetable. The CBO warns: “The transition toward a single-payer system could be complicated, challenging and potentially disruptive.”⁸⁷ In this connection, RAND Corporation analysts note that the House bill would engineer “a massive reorientation” of American health care in an uncomfortably short period of time: “The Jayapal bill includes a two-year transition period; however a longer time may be required to enable consumers, providers and regulators to fully adjust to this substantial change.”⁸⁸

Historically, major health reform measures—highly consequential but far less ambitious—have usually provided far more generous time frames for transitions, giving employers, employees, doctors and patients, medical institutions, and professionals ample time to adjust. The Affordable Care Act of 2010 (ACA), which effected a major shift in regulatory authority over health insurance from the states to the federal government, provides a graphic example. In 2014—the first year of full implementation—the ACA got off to a rocky start, even with almost four years of federal and state preparation. Nonetheless, the Obama Administration had to grapple with an initial failure of its enrollment website, unanticipated disruptions and losses of coverage in the insurance markets, explosive premium and deductible increases, and much narrower than anticipated provider networks in the ACA plans. Even targeting a much smaller population for health insurance coverage, the

federal administrative task proved to be large and complex and was routinely plagued by serious glitches.

Conclusion

The congressional sponsors of H.R. 1384 would create a single, national health insurance program and provide “universal” coverage for every “resident” of the United States—regardless of whether that resident is in the U.S. legally or illegally.

Universal government coverage means universal government control. Two years after enactment, the legislation would virtually eliminate all existing public and private coverage alternatives, including all private health plans, employer-sponsored health insurance, health insurance exchange plans, Medicare, Medicaid, CHIP, Tricare, and the FEHBP. It would also severely restrict the ability of doctors and patients to enter into any independent relationship outside the government program, and government officials would closely monitor those external arrangements that are permissible. If enacted, the House bill would amount to another quantum leap forward in the power of the modern administrative state.

Under the House bill, any remaining independent, private transactions in American health care would largely disappear; private market profit and loss would be replaced by public program spending and program funding shortfalls.⁸⁹ The legislation would thus complete the politically driven concentration of federal power over American health care, a process of market consolidation accelerated in 2010 by Obamacare’s rapid multiplication of federal government mandates.⁹⁰ The legislation would also hasten the already rapid erosion of independent medical practice and physician autonomy.

While Congress would exercise the final authority over program financing and the content of the benefits package, the key, day-to-day decision making over most aspects of American health care would be vested in the HHS Secretary and the Secretary’s many subordinates. Among numerous administrative and regulatory duties, the Secretary would be required to create a national health database and national health budget and oversee regional offices and the transition program. Though the House legislation contains no financing provisions, the sheer size of this vast enterprise, and the federal spending and taxation to sustain it, would be enormous and unprecedented.⁹¹

Congressional sponsors of the legislation often claim that a single government system would be more equitable and economically efficient, while

generating significant cost savings and superior medical outcomes. They thus propose the adoption of a global budget to reduce health care costs. It could be done, of course, but not without shifting costs, in the form of pain and suffering, to patients. The “single-payer” experience of other countries demonstrates a clear pattern of waiting lists, delays, and denials of access to care.⁹²

As of yet, there is no CBO cost analysis of the bill to justify a belief in either imagined savings or greater economic efficiency. In fact, as noted, a broad range of diverse and respected independent analysts—ranging from the liberal Urban Institute to the conservative Mercatus Center—warn that overall costs could be considerably greater than the leading congressional proponents of these House and Senate proposals have claimed.⁹³

The first set of congressional hearings on the House bill in 2019 marks a turning point in the national health care debate. The proponents of the proposal promise a bright health care future. Opponents rightly point to dismal performance of countries with similar systems in place, particularly long wait times and reduced access to quality care.

Opposition to this concentrated federal power and control over American health care is not, in any sense, an endorsement of the status quo. Members of Congress have a grave responsibility to address the central problems of American health care, including distorted and uncompetitive markets, constraints on the choice of health plans and providers, artificially high health insurance costs, uneven quality, and the gaps in care and coverage. The Health Care Choices Proposal, developed by conservative health policy analysts, would directly address these problems and thus reduce costs, expand personal choice, reignite competition, and stabilize coverage in the nation’s health care markets.⁹⁴

Sound reform can address America’s worst problems without destroying what is best: America’s capacity for medical innovation and rapid responsiveness in the treatment and cure of deadly disease. Most important, comprehensive reform can expand Americans’ personal freedom while solving these problems, instead of eliminating it.

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Endnotes

1. In celebrating the emergence of the single-payer bills, a champion in the media observes: "There is one thing we can be thankful for: Medicare for All is now a mainstream position in the Democratic Party, to the point where most of the leading Democratic candidates say they support it." Libby Watson, "A Public Option Isn't Good Enough," *Splinter*, February 1, 2019, <https://splinternews.com/a-public-option-isn-t-good-enough-1832011806> (accessed July 8, 2019).
2. "The bills swiftly transform the entire \$3.7 trillion health care system, touching on everything from building primary and rural health care capacity to addressing socioeconomic disparities to getting all health care providers to use the same electronic billing format." Alice Miranda Ollstein and Joanne Kenen, "From Abortion to Immigration, Things You Didn't Know Were in Medicare for All," *Politico*, April 10, 2019, p. 1, <https://www.politico.com/story/2019/04/10/sanders-medicare-for-all-1341799> (accessed July 8, 2019).
3. Niran S. Al-Agba, "'Medicare for All' a Far Cry from Other Nations' Universal Care," *Medpage Today*, May 9, 2019, <https://www.medpagetoday.com/blogs/kevinmd/79740> (accessed July 8, 2019).
4. U.S. Census Bureau, American Community Survey, Tables S2701, S2702, S2703, and S2704 for the year 2017, <https://factfinder.census.gov> (accessed March 24, 2019).
5. Among some strong supporters of the legislation, the destruction of Americans' employer-sponsored health plans is a reasonable price for securing a government monopoly: "A vocal minority of people with employer provided coverage they actually like doesn't mean you should ignore what's best for everyone." Watson, "A Public Option Isn't Good Enough."
6. Cited in Shefall Luthra, "There's a New 'Medicare-for All' Bill in the House. Why Does It Matter?" *Kaiser Health News*, February 27, 2019, <https://khn.org/news/theres-a-new-medicare-for-all-bill-in-the-house-why-does-it-matter/> (accessed July 8, 2019).
7. Ollstein and Kenen, "From Abortion to Immigration, Things You Didn't Know Were in Medicare for All."
8. Medicare for All Act of 2019, Title VII, Section 701 (a), (3), p. 91.
9. According to analysts with the National Right to Life Committee, "Working in tandem, Sections 103 and 104 and 301 are likely to be interpreted to require physicians to perform an abortion, even if they are morally opposed to them, as this would constitute discrimination under this definition." See The National Right to Life Committee, "NRLC Strongly Opposes H.R. 1384, the 'Medicare for All Act of 2019,'" April 29, 2019, <https://www.nrlc.org/federal/ahc/nrlc-strongly-opposes-h-r-1384-the-medicare-for-all-act-of-2019/> (accessed July 8, 2019).
10. The previous version of the House bill (H.R. 676) specified that the financing would come from "existing federal revenues" for health care. It would require new personal income taxes on the "top five percent of income earners"; "modest and progressive excise taxes on payroll and self-employment income"; and a "modest tax" on unearned income, plus a "small tax" on stocks and bond transactions. See H.R. 676, Section 211. Such legislative language, however, was unamenable to econometric analysis.
11. Luthra, "There's a New 'Medicare for All' Bill in the House."
12. Charles P. Blahous, testimony before the Committee on Rules, U.S. House of Representatives, April 30, 2019, p. 2, <https://docs.house.gov/meetings/RU/RU00/20190430/109356/HHRG-116-RU00-Wstate-BlahousC-20190430.pdf> (accessed July 8 2019).
13. *Ibid.*, p. 1.
14. *Ibid.*, p. 2.
15. Rand Corporation analysts estimate that the total cost of the program, if implemented in 2019, would amount to \$3.89 trillion, or a 1.8 percent increase in total spending over the status quo. However, it would amount to a 221 percent increase in federal health spending. Moreover, in the absence of a serious constraint on the supply of health care services, in the face of a rising demand, total health care spending could rise from \$3.89 trillion to \$4.2 trillion, a 9.8 percent increase. Jodi L. Liu and Christine Eibner, "National Health Spending Estimates Under Medicare for All," RAND Corporation, 2019, https://www.rand.org/pubs/research_reports/RR3106.html (accessed July 8, 2019).
16. Medicare for All Act of 2019, Title VI, Section 601, (a) (8), p. 62.
17. Adam Shaw, "Medicare for All Sponsor Says Plan Would Gut 1 Million Private Jobs," *FoxNews*, May 3, 2019, <https://www.foxnews.com/politics/medicare-for-all-would-gut-a-million-private-insurance-jobs> (accessed July 8, 2019).
18. Medicare for All Act of 2019, Title I, Section 101, p. 4.
19. Among economically advanced nations, the House bill, covering foreign residents regardless of their legal status, would be unprecedented: "[T]he majority of universal health care systems in the developed world are considerably less 'universal' when covering immigrants, who are mostly excluded." Al-Agba, "'Medicare for All' a Far Cry from Other Nations' Universal Care."
20. Congressional Budget Office, "Key Design Components and Considerations for Establishing a Single-Payer Health Care System," May 1, 2019, p. 3, <https://www.cbo.gov/publication/55150> (accessed July 8, 2019).
21. Medicare for All Act of 2019, Title I, Section 102, p. 5. The Senate bill embodies the same general eligibility policy.
22. *Ibid.*, Section 105 (b), p. 8.

23. *Ibid.*, Title I, Section 102, pp. 4 and 5.
24. *Ibid.*, Title I, Section 103, p. 5.
25. *Ibid.*, Title I, Section 104, p. 5.
26. *Ibid.*, Title I, Section 104, (c), p. 7.
27. Insurance enrollment is based on 2017 data, compiled by the Kaiser Family Foundation, “Health Insurance Coverage of the Total Population,” 2017, <https://www.kff.org/other/state-indicator/total-population/?currentTimeframe=0&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D> (accessed July 8, 2019). Medicare enrollment is taken from the *2019 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, April, 2019, p. 173, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2019.pdf> (accessed July 8, 2019).
28. Medicare for All Act of 2019, Title I, Section 107 (a), p. 9.
29. *Ibid.*, Title VII, Section 701, (a), p. 93.
30. *Ibid.*, Title VII, Section 701 (2) (A), pp. 89 and 90.
31. “Private health insurance plays a major role in most developed countries with universal coverage.” See Al-Agba, “‘Medicare for All’ a Far Cry from Other Nations’ Universal Care.”
32. Congressional Budget Office, “Key Design Components,” p. 13.
33. “The Department of Health and Human Services would have significant discretion in interpreting what specific services are ‘medically necessary.’ That means political leaning or scientific debates could sway what’s covered, even from administration to administration.” Luthra, “There’s a New ‘Medicare for All’ Bill in the House.”
34. Medicare for All Act of 2019, Section 201 (c) (1) (2), p. 12.
35. *Ibid.*, Section 201, (e), p. 14.
36. *Ibid.*, Title II, Section 203 (b), pp. 14 and 15.
37. *Ibid.*, Section 203 9c) (1), pp. 15 and 16. The legislative text is unclear as to how certain likely problems would be resolved, particularly in cases where the best professional judgment of physicians clashes with provisions of the “non-discrimination” clause, patient preferences, or physicians’ professional ethical obligations under the Hippocratic Oath. The consequence is likely to be the creation of an authoritarian administrative system where transient political fashions would govern medical ethics, rather than traditional ethical or moral norms. In any case, these provisions are pregnant with intense conflict and court litigation.
38. “Most universal coverage systems offer narrow benefit packages and incorporate cost-sharing for patients.” Al-Agba, “‘Medicare for All’ a Far Cry from Other Nations’ Universal Care.”
39. Congressional Budget Office, “Key Design Components,” pp. 10 and 11.
40. Medicare for All Act of 2019, Title II, Section 204 (a), pp. 17 and 18.
41. *Ibid.*, Title II, Section 204, (c), pp. 18 and 19.
42. *Ibid.*, Title II, Section 204, c (s), pp. 18 and 19.
43. *Ibid.*, Title II, Section 204 (d), p. 20.
44. The previous House version had 10 benefit categories. See H.R. 676, Title I, Section 102.
45. Congressional Budget Office, “Key Design Components,” p. 10.
46. *Ibid.*
47. *Ibid.*, p. 10.
48. Medicare for All Act of 2019, Title II, Section 204 (c) (1).
49. Liu and Eibner, “National Health Spending Estimates Under Medicare for All.”
50. For an excellent overview of this problem, see Kevin Pham, “America’s Looming Doctor Shortage: What Policymakers Should Do,” Heritage Foundation *Backgrounder* No. 3343, September 5, 2018, <https://www.heritage.org/health-care-reform/report/americas-looming-doctor-shortage-what-policymakers-should-do>.
51. Kevin Pham and Robert E. Moffit, “Britain’s Inability to Handle Last Year’s Flu Season Shows Perils of Socialized Medicine,” *The Daily Signal*, August 13, 2018, <https://www.dailysignal.com/2018/08/13/britains-inability-to-handle-last-years-flu-season-shows-perils-of-socialized-medicine/>.
52. Medicare for All Act of 2019, Title III, Section 301 (b), pp. 22–24.
53. *Ibid.*, Title III, Section 301 (b), pp. 24 and 25. It is worth noting that current Medicare law has a “prompt payment” requirement, and, in the case of a delay in paying providers’ “paper” claims, the federal government must pay interest after 30 days. It appears that the House bill contains no similar legal requirement.

54. *Ibid.*, Title III, Section 302 (c) (1), pp. 33 and 34.
55. *Ibid.*, Title III, Section 302, (c), (2), pp. 34 and 35.
56. *Ibid.*, Section 502 (a) (b) (c), pp. 53–55. Administrative standard setting is, however, often incompatible with personalized patient care. “Standardization of care in a medical condition, though advocated by many, belies the complexity of care delivery and the variety of patient circumstances.” Michael E. Porter and Elizabeth Teisberg, *Redefining Health Care: Creating Value-Based Competition on Results* (Boston: Harvard Business School Press, 2006), p. 178.
57. Medicare for All Act of 2019, Title V, Section 502 (a), (b), (c), pp. 55–57.
58. *Ibid.*, Title III, Section 303, p. 36.
59. *Ibid.*, Title III, Section 303, pp. 36–38.
60. *Ibid.*, Title III, Section 303, p. 42.
61. According to the CBO, “In England, private insurance gives people access to private providers, faster access to care or coverage for complementary or alternative therapies, but participants must pay for it separately in addition to paying their individual required tax contributions to the NHS.” Congressional Budget Office, “Key Design Components,” p. 13. Not surprisingly, with the growth in waiting lists, British private options have expanded in recent years. For an account of this expansion, see Tim Evans, “London Calling: Don’t Commit to Nationalized Health Care,” Heritage Foundation *Backgrounders* No. 3405, May 3, 2019, pp. 6 and 7, <https://www.heritage.org/health-care-reform/report/london-calling-dont-commit-nationalized-health-care>.
62. Anne Gulland, “Will Private Practice Remain an Attractive Option for Doctors?” *British Medical Journal*, Vol. 356 (March 2017), <https://www.bmj.com/content/356/bmj.j1258> (accessed July 9, 2019).
63. Under the House bill, the congressional grant of power to the HHS Secretary would be unprecedented, and yet so would the politicization of health care decision making. Professors Porter and Teisberg thus warn: “It simply strains credulity to imagine that a large government entity would streamline administration, simplify prices, set prices according to true costs, help patients make choices based on excellence and value, establish value-based competition at the provider level, and make politically neutral and tough choices to deny patients and reimbursement to substandard providers.” Porter and Teisberg, *Redefining Health Care*, pp. 89 and 90.
64. Medicare for All Act of 2019, Title IV, Section 401, (a), (1), pp. 43 and 44.
65. Medicare for All Act of 2019, Title IV, Section 401, (a) (3), p. 44.
66. *Ibid.*, Title IV, Section 401 (b) (10), p. 45.
67. *Ibid.*, Title IV, Section 401, (c) (1), pp. 48 and 49.
68. *Ibid.*, Title IV, Section 403 (c), pp. 50 and 51. In short, these regional directors would take over the local health-planning responsibilities that are now mostly exercised by state agencies.
69. “Single-payer health systems typically include some form of global budgeting. Most hospitals in Canada operate under annual global budgets. Some countries define global budgets more broadly to cover total health care spending or spending for major categories of services.” Congressional Budget Office, “Key Design Components,” p. 19. The House bill defines the global budget in the broad sense of covering total health care spending.
70. Medicare for All Act of 2019, Section 601, (a), p. 59.
71. *Ibid.*, Title VI, Section 613, pp. 74–77.
72. *Ibid.*, Title VI, Section 612, p. 73.
73. *Ibid.*, Title IX, Section 903, pp. 98–101.
74. *Ibid.*, Title VI, Section 614 (c), p. 80.
75. *Ibid.*
76. *Ibid.*, Section 616 (1), pp. 83 and 84.
77. *Ibid.*, Title VI, Section 616, (3) (A), p. 85.
78. *Ibid.*, Title VI, Section 616 (A), p. 86.
79. *Ibid.*, Title VI, Section 616 (3) (D), p. 87.
80. Blahous, testimony before the Committee on Rules, U.S. House of Representatives, p. 4.
81. Medicare for All Act of 2019, Title X, Section 1001, p. 101.
82. *Ibid.*, Title X, Section 1002, (b) (4), p. 104.
83. *Ibid.*, Title X, Section 1002, (c) (2), p. 105.
84. *Ibid.*, Title X, Section 1002, pp. 103–106.
85. Paying for Senior Care, “2019 Health & Human Services Poverty Guidelines/Federal Poverty Levels,” May 2019, <https://www.payingforseniorcare.com/longtermcare/federal-poverty-level.html> (accessed July 9, 2019).

86. Medicare for All Act of 2019, Title X, Section 1002, pp. 107-111.
87. Congressional Budget Office, "Key Design Components," p. 3.
88. Liu and Eibner, "National Health Spending Estimates Under Medicare for All."
89. On this point, the congressional sponsors are clear: "There is a moral imperative to correct the massive deficiencies in our current health system and to eliminate profit from the provision of care." Sense of the Congress, Medicare for All Act of 2019, p. 78. So, too, are the inevitable consequences: "If the economic decision mechanisms of the market are abolished, they must be replaced by political (governmental) mechanisms for distribution. Just as the market rewards economic services, political distribution systems will reward political services, that is, services in the production and distribution of power." Ernest van den Haag, "Confusion, Envy, Fear and Longing," in Van den Haag, ed., *Capitalism: Sources of Hostility* (New Rochelle, NY: Epoch Books, 1979), p. 28.
90. For an excellent discussion of the ACA's impact on market concentration, see Christopher M. Pope, "How the Affordable Care Act Fuels Health Care Market Consolidation," Heritage Foundation *Backgrounders* No. 2928, August 1, 2014, http://thf_media.s3.amazonaws.com/2014/pdf/BG2928.pdf.
91. "Taxes that could finance a single payer system include income taxes (both individual and corporate), payroll taxes, and consumption taxes, all of which have different implications for progressivity of the financing system. A system financed by debt might require additional taxes in the future." Congressional Budget Office, "Key Design Components," p. 28.
92. "The relatively slow growth in (Britain's) global budget since 2010 has created severe financial strains on the health care system. Provider payment rates have been reduced, many providers have incurred financial deficits, and wait times for receiving care have increased." Congressional Budget Office, "Key Design Components," p. 26.
93. Reflecting on the April 30, 2019, House Rules Committee hearing, Blahous, a witness, observed: "Multiple experts who testified at the hearing agreed that most of these new federal costs would arise from the federal government's taking on spending currently done by the private sector, e.g., through private health insurance and individual payments out of pocket. Under M4A the federal government would also assume health spending obligations currently financed by state and local governments. The fact that most of this spending is really being done by someone else does not, however, imply that the federal government could successfully finance it without causing significant damage to the U.S. economy." Charles Blahous, "The Winners and Losers of 'Medicare for All,'" *Economics 21*, May 22, 2019, <https://economics21.org/medicare-for-all-winners-and-losers> (accessed July 9, 2019).
94. For an overview of this approach, see Edmund F. Haislmaier, Robert E. Moffit, and Nina Owcharenko Schaefer, "The Health Care Choices Proposal: Charting a New Path to a Down Payment on Patient-Centered, Consumer-Driven Health Care Reform," Heritage Foundation *Backgrounders* No. 3330, July 11, 2018, https://www.heritage.org/sites/default/files/2018-07/BG3330_0.pdf.

Medicare-for-All Would Eliminate Most or All of Medicaid, But No One Is Talking About It

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Published: Jul 18, 2019



A shorter version of this column was published in [Axios](https://www.axios.com/medicare-for-all-bernie-sanders-medicaid-states-b3c5eceb-0f3c-4c4b-9317-6a1f9434232b.html) (<https://www.axios.com/medicare-for-all-bernie-sanders-medicaid-states-b3c5eceb-0f3c-4c4b-9317-6a1f9434232b.html>) on July 18.

Here are a few questions moderators could ask of candidates supporting Medicare-for-all, if they want to get a little deeper on health care.

“You support Medicare-for-all. But Medicaid, along with CHIP, covers 73 million Americans, and Medicaid is larger than either the ACA or Medicare. Would you eliminate Medicaid? If you would, do you see states playing a much smaller role in the health system in the future? Why would your plan be better than Medicaid is today?”

There has been controversy about eliminating private insurance in a Medicare-for-all plan, but there has been radio silence about eliminating Medicaid. That may be because advocates of Medicare-for-all feel that a national program covering everyone and eliminating differences in coverage between states would be better than Medicaid. But Medicaid has become a popular program, defended fiercely by Democrats when Republicans have tried to cut and change it. Its elimination would fundamentally change the roles of the federal and state governments in health, and change health insurance and health care arrangements for many of the 73 million low-income Americans on Medicaid today. It is as worthy of discussion as abandoning private coverage is, even if many are ultimately persuaded that it makes sense.

Of the leading Medicare-for-all plans, the Sanders plan keeps institutional long-term care in Medicaid, but moves the acute portion to Medicare-for-all. By contrast, the Jayapal plan adds long-term care to Medicare and eliminates Medicaid entirely.

Under the Jayapal plan, 73 million beneficiaries would lose Medicaid or CHIP coverage and gain coverage under the new Medicare-for-all plan. Under Sanders’ plan, beneficiaries receiving institutional long-term care would remain on Medicaid for those services, but most beneficiaries would shift to the new national plan. The popular CHIP program would be replaced under both plans.

Medicaid is the single largest item in most state budgets, and states would reap huge savings under either plan, though the savings under the Sanders bill would be smaller with states still responsible for covering institutional long-term care.

The uninsured in states that have not expanded Medicaid would be big winners. But many people know Medicaid by the names their states have given to it, and are loyal to their state program and have established connections with plans and providers which they value.

The effects on safety net hospitals and clinics would vary and are hard to predict. Many are substantially dependent on their Medicaid revenues and their fates would largely hinge on where people go for care with their new coverage and how payment rates under the new Medicare-for-all plan compare to Medicaid today.

The change would all but eliminate the role of states in health coverage for low-income people. It comes at a time when state Medicaid programs have been leaders in experimenting with delivery and payment reforms, efforts to control drug costs, and experiments aimed at addressing social causes of ill health such as poverty and poor housing. Those reforms – and the idea of states as laboratories of reform – would pretty much disappear, and the balance of federalism in health would fundamentally change. For advocates of a single national plan that's progress; for fans of maintaining a federal-state balance that's a big problem.

It's likely that some governors would press successfully for a waiver authority enabling them to operate their own single payer systems or to undertake other experiments in a Medicare-for-all world.

Advocates would argue that a single mainstream national program with no cost sharing and, in theory, access to a wider range of providers, would be an improvement. But the details of how the country's largest health insurance program would be eliminated matter. The needs of special populations such as disabled low-income children, the homeless, and the recently incarcerated would need to be addressed. Certainly, eliminating private insurance isn't the only issue that warrants discussion.

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State Actions to Improve the Affordability of Health Insurance in the Individual Market

Jennifer Tolbert, Maria Diaz, Cornelia Hall, and Salem Mengistu

Introduction

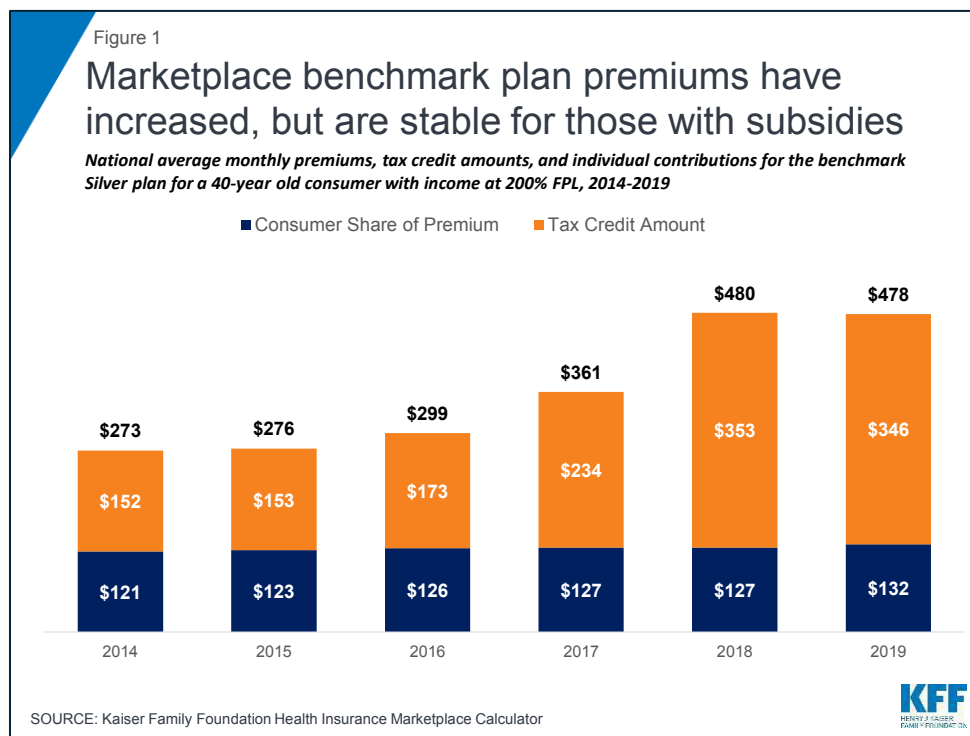
The health insurance marketplaces established by the Affordable Care Act (ACA) provide coverage to about 11 million consumers. However, insurance premiums in these marketplaces have risen dramatically across most states in recent years. Even as premium increases moderated in 2019, the cost of coverage remained unaffordable for many. While consumers in the marketplace who qualify for premium tax credits are protected from these high costs, those with moderate incomes who are not eligible for subsidies bear the full costs of any premium increases. Older adults with income just above 400% of poverty (the cutoff for premium subsidies in the marketplace) face the greatest challenges affording marketplace coverage.¹ Reflecting this affordability challenge, the number of unsubsidized enrollees in plans that comply with the ACA insurance market rules fell sharply from 6.8 million in 2016 to 3.9 million in 2018.²

A number of states have taken steps to provide consumers with more affordable coverage options, although their approaches differ.³ Some states are implementing strategies that lower premiums by building on, and increasing the stability of the individual market. These actions include implementing reinsurance programs; adopting state individual mandate requirements; providing enhanced state-funded subsidies to certain marketplace enrollees; and implementing a public plan option in the marketplace. Other states are following the lead of the Trump administration by expanding the availability of lower cost coverage sold outside the marketplaces that does not comply with ACA standards—an approach that could increase marketplace premiums further. This brief examines these different approaches and discusses the implications of state policy choices.

Background

Since their rollout in 2014, the health insurance marketplaces have experienced significant volatility. Following premium increases in 2017 designed to stem early losses, the markets appeared to be stabilizing, suggesting premium increases for 2018 would have been modest. However, in response to policy decisions by the Trump administration to eliminate payments to insurers for required cost-sharing subsidies and reduce funding for outreach and enrollment assistance in the marketplaces, along with uncertainty over the future of the individual mandate, insurers responded by increasing average benchmark premiums by 33% for 2018 (Figure 1).⁴ It should be noted, because of a “silver loading” strategy used by most insurers to offset the effect of eliminating cost-sharing subsidy payments,

subsidized consumers in the marketplaces were held harmless and in some cases were even better off as subsidies increased along with benchmark premiums.



Federal and state responses to premium increases in the marketplaces reflect the ongoing ideological divide over the ACA. Supporters of the ACA argue that best way to lower costs while protecting all consumers is to shore up the marketplaces by encouraging robust enrollment, particularly among young, healthy adults. With a balanced risk pool, multiple levers can then be used to lower premiums. In contrast, opponents of the ACA cite recent premium increases as evidence that the marketplaces are not working. They advocate loosening ACA requirements on alternative coverage sold outside the marketplaces to provide consumers with more lower cost options that generally provide fewer benefits and do not cover pre-existing conditions.⁵

Improving Affordability by Stabilizing the Marketplaces

Reinsurance Programs

A strategy that has proven popular among states across the ideological spectrum is reinsurance. Reinsurance programs address rising premiums by partially reimbursing insurers for certain high cost claims, which in turn, enables insurers to lower premiums for all ACA-compliant plans inside and outside the marketplace. Reinsurance programs take different approaches to defining reimbursable claims—some programs pay a portion of claims for consumers with certain medical conditions, while other programs reimburse a percentage of claims between specified dollar amounts. Evidence suggests these programs have been effective at reducing premiums in the individual market. Data from Alaska,

Minnesota, and Oregon indicate that the implementation of the reinsurance programs led to lower premium increases than had been expected and prevented insurers from exiting the marketplaces.⁶ At the same time, while these programs lower premiums overall, they do not address the affordability challenges faced by consumers with moderate incomes, especially older adults, for whom premiums may still be unaffordable even after being lowered by as much as 10-15%.

One challenge states face with implementing a reinsurance program is the cost. States have used the ACA's 1332 waiver authority to access federal pass-through funds to assist with financing reinsurance programs. To date, seven states (Alaska, Maine, Maryland, Minnesota, New Jersey, Oregon, and Wisconsin) have approved reinsurance waivers, while four states (Colorado, Montana, North Dakota, and Rhode Island) have pending waiver applications (Table 1).⁷ These federal pass-through funds, however, do not fully finance the costs of the reinsurance programs. Some states rely on state general fund revenues, while others target specific funding streams. New Jersey is directing funds raised through its state individual mandate penalty toward the reinsurance program, and legislation to create a reinsurance program in Pennsylvania would be funded through savings generated by the state transitioning away from the federal marketplace to a fully state-run marketplace.⁸

State Individual Mandate Requirements

With the passage of the tax law at the end of 2017, Congress eliminated the penalty for not having health insurance beginning in 2019. The ACA individual mandate was considered an important tool for encouraging individuals, especially young, healthy adults, to purchase health insurance. Without the penalty, it is anticipated that some people, primarily healthier individuals, will choose not to purchase coverage, potentially driving up premiums for those who remain in the marketplaces. In November 2017, CBO estimated that the eliminating the penalty would lead to 4 million fewer people with health insurance in 2019 and 13 million fewer people with health insurance in 2027.⁹ Nearly 40% of the coverage losses would come from five million fewer people enrolling in non-group coverage in 2027.¹⁰

To stem this expected loss of coverage, three states (Massachusetts, New Jersey, and Vermont) and the District of Columbia have adopted state individual mandate requirements (Table 2). The individual mandate in Massachusetts predates the ACA mandate, while the mandate requirements in DC and New Jersey reinstate the ACA penalties, though each tie the maximum penalty to the lowest-cost bronze plans in their states.¹¹ The individual mandate provisions in Vermont are being developed and are scheduled for implementation in 2020. Recently enacted legislation in California and Rhode Island establishes a state individual mandate.^{12,13} In some cases, states have earmarked funds expected to be raised from the individual mandate to fund reinsurance programs or other initiatives. As noted above, funds from the newly adopted individual mandate penalty in New Jersey are being used to finance the state's reinsurance program.

Table 1: Status of State 1332 Reinsurance Waivers

State	Date Approved or Submitted	Description
Approved		
Alaska	July 7, 2017	Allows federal pass-through funding to finance the state's Alaska Reinsurance Program (ARP). The ARP fully or partially reimburses insurers for incurred claims for high-risk enrollees diagnosed with certain health conditions.
Maine	July 30, 2018	Allows federal pass-through funding to finance reinstatement of the Maine Guaranteed Access Reinsurance Association (MGARA), the state's reinsurance program that operated in 2012 and 2013. The MGARA reimburses insurers 90% of claims paid between \$47,000 and \$77,000 and 100% of claims in excess of \$77,000 for high-risk enrollees diagnosed with certain health conditions or who are referred by the insurer's underwriting judgment.
Maryland	August 22, 2018	Allows federal pass-through funding to finance the Maryland Reinsurance Program. The plan reimburses insurers 80% of claims between \$20,000 and \$250,000.
Minnesota	September 22, 2017	Allows federal pass-through funding to finance the Minnesota Premium Security Plan (MPSP), a reinsurance program that reimburses insurers 80% of claims between \$50,000 and \$250,000.
New Jersey	August 16, 2018	Allows federal pass-through funding to finance the Health Insurance Premium Security Plan. The plan reimburses insurers 60% of claims between \$40,000 and \$215,000.
Oregon	October 18, 2017	Allows federal pass-through funding to finance the Oregon Reinsurance Program (ORP). The ORP reimburses insurers 50% of claims between \$95,000 and \$1 million.
Wisconsin	July 29, 2018	Allows federal pass-through funding to finance the Wisconsin Healthcare Stability Plan (WIHSP). The WIHSP reimburses insurers 50% of claims between \$50,000 and \$250,000.
Pending		
Colorado	May 20, 2019	Allow federal pass-through funding to finance a reinsurance program administered by the Colorado Department of Insurance. The reinsurance program will reimburse insurers 60% of claims paid between \$30,000 and an estimated \$400,000 cap.
Montana	June 19, 2019	Allow federal pass-through funding to finance a reinsurance program administered by the Montana Reinsurance Association Board and the Commissioner of Securities and Insurance. The reinsurance program will reimburse insurers 60% of claims paid between \$40,000 and an estimated \$101,750 cap.
North Dakota	May 10, 2019	Allow federal pass-through funding to finance the Reinsurance Association of North Dakota (RAND). RAND would reimburse insurers 75% of claims paid between \$100,000 and \$1,000,000.
Rhode Island	June 28, 2019	Allow federal pass-through funding to finance a reinsurance program administered by HealthSourceRI. The reinsurance program will reimburse insurers 50% of claims paid between \$40,000 and a cap of \$97,000.

Although not an individual mandate per se, Maryland enacted into law in May 2019 the Maryland Easy Enrollment Health Insurance Program (MEEHP), which will use the state tax return to screen uninsured residents for eligibility for subsidized health coverage.¹⁴ The new program will enable uninsured Maryland residents to check a box on their state tax return requesting the state to use available information to determine their eligibility for Medicaid, the Children’s Health Insurance Programs, or marketplace subsidies. Those determined eligible for Medicaid or CHIP will be automatically enrolled, while those determined eligible for marketplace coverage will be contacted by the marketplace and given a brief special enrollment period during which they can enroll in coverage.

Table 2: States with Enacted Individual Mandate Requirements

State	Effective Year	Description
California	2020	Would reinstate penalty similar to the ACA.
District of Columbia	2019	Reinstates ACA penalty with a maximum penalty equivalent to the cost of the average yearly premium of a bronze-level plan in DC.
Massachusetts*	2007	Penalties: <ul style="list-style-type: none"> Income 150%-300% FPL: half of the lowest priced ConnectorCare premium Income 300%+: half the lowest cost Bronze premium For 2019, penalties range from \$264/year for those with income 150-200% FPL to \$1,524/year for those with income above 300% FPL
New Jersey	2019	Reinstates ACA penalty with a maximum penalty equivalent to the cost of the average yearly premium of a bronze-level plan in the state.
Rhode Island	2020	Would reinstate the ACA penalty with a maximum penalty equivalent to the cost of the average yearly premium of a bronze-level plan in the state.
Vermont	2020	Details of penalty are still to be determined

State-funded Enhanced Subsidies

Another strategy some states have adopted to improve affordability is to provide state-funded subsidies that wrap around federal premium tax credits and cost sharing reductions. Currently, two states—Massachusetts and Vermont—offer such subsidies. Both states provide additional premium and cost sharing subsidies to people with income up to 300% of the federal poverty level. Neither state extends subsidies to those with income above 400% FPL.

More recently, a number of states have proposed enhancing premium subsidies, particularly for individuals with income above 400% FPL who are not eligible for federal premium tax credits. California will provide temporary state-funded premium subsidies to consumers with income up to 600% FPL and will further enhance subsidies for consumers with incomes from 200-400% FPL for coverage years 2020 and 2021.¹⁵ Additionally, legislation passed in Washington requires the state to develop a plan to

implement and fund premium subsidies for individuals with incomes up to 500% FPL to limit what they pay in premiums to no more than 10% of household income.¹⁶

Similar to reinsurance programs, one of the barriers to implementing state-funded subsidies is the cost. Massachusetts and Vermont were able to leverage existing Medicaid 1115 waivers to secure federal Medicaid matching funds to help finance their subsidies; however, states proposing to extend subsidies to those with income above 400% FPL would not be able to access Medicaid funds in the same way. California will use money generated from imposing individual mandate penalties to partially finance these costs, along with general fund contributions. In Washington, the revenue source for the enhanced subsidies has not been specified.

Public Plan Option

Mirroring proposals at the federal level, a number of states have proposed public plan options. Broadly defined, these proposals include public plan options offered as qualified health plans (QHPs) in the state's marketplace or a Medicaid or Basic Health Plan (BHP) buy-in plan primarily targeting moderate-income individuals in the marketplace. During the 2019 legislative session, a flurry of proposals were debated garnering a great deal of attention; however, only Washington has so far enacted a public plan option. Two other states, Colorado and New Mexico, enacted legislation to develop public option/Medicaid buy-in plans for review by the legislature in upcoming legislative sessions.

Under the Washington state proposal, the Washington Health Care Authority, the agency that administers the Medicaid program and the state employee health plan, will directly contract with one or more private insurers to offer qualified health plans (QHPs) in the state's marketplace beginning in 2021. QHPs would be offered at the bronze, silver, and gold levels. To lower the premium of the public plan, payments to providers are limited to 160% of what Medicare would have paid in aggregate for the same services, with special payment rules for rural hospitals and primary care services. The state projects premiums for the public plan options will be about 10% lower than for other plans in the marketplace.¹⁷

While narrowly crafted both to gain legislative approval and also to avoid the necessity of applying for a 1332 waiver to offer the public plan as a QHP, the Washington approach nevertheless offers an opportunity to test the concept of using a public plan to spur competition in the marketplaces and offer a lower-cost option to consumers. As Washington proceeds with implementation of the public plan, other states and federal policymakers will be watching how it addresses a number of key issues, including contracting with insurers, setting provider reimbursement rates, and securing provider participation, whether the public option can coexist with private plans, and whether the public plan proves to be a more affordable and attractive option for consumers.

Regulating the Availability of Coverage Options Outside the ACA Marketplaces

Health coverage that does not meet ACA consumer protection requirements is available outside of the marketplaces in many states. This coverage can take several forms, including short-term limited duration insurance, transitional plans, also referred to as “grandmothered” plans, and Farm Bureau health plans. Because these plans can refuse to sell coverage to people with pre-existing conditions and are not required to cover the ten essential health benefits, they are cheaper than plans that must meet these and other ACA requirements. The Trump administration and a number of states view this coverage as a more affordable alternative for some consumers, especially those who do not qualify for subsidies or who qualify for only limited subsidies in the marketplaces, and seek to make them more available. In contrast, other states view these plans as a threat to the stability of the marketplaces and the affordability of coverage for people with health conditions, and restrict their availability.

Availability of Alternative Coverage

In 2018, the Trump administration issued new guidance expanding the availability of short-term plans. These plans, designed for consumers who experience short gaps in coverage, are not required to meet any of the ACA standards, including guaranteed issue and renewability and required benefits. Consequently, these plans exclude coverage for pre-existing conditions, do not cover many health essential health benefits, such as mental health services, prescription drugs, and maternity care, and may impose lifetime or annual limits on coverage.¹⁸ Obama-era rules limited these plans to no more than three months and prohibited plan renewal. Under the new rules, coverage under short-term plans can last up to 364 days and may be renewed at the discretion of the insurer for up to 36 months.

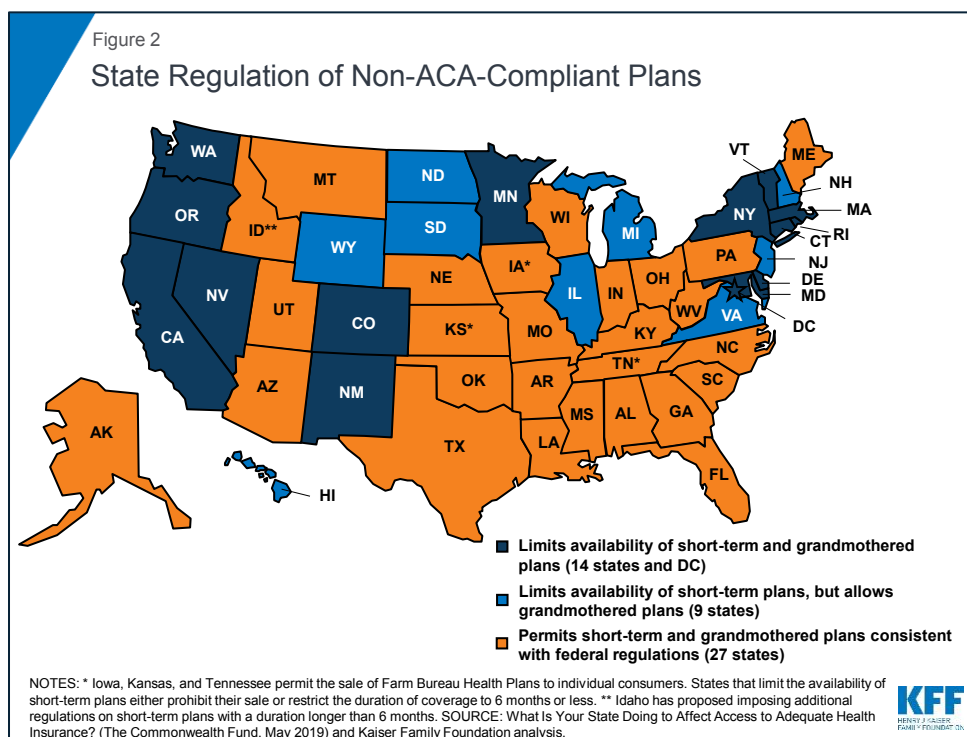
Because these plans can exclude consumers with pre-existing conditions and offer more limited benefits, it is estimated that premiums for these short-term plans could be as much as 54% lower than premiums for ACA-compliant plans.¹⁹ With such substantially lower premiums, short-term plans will offer an attractive option to healthy consumers, particularly those who are not eligible for premium subsidies in the marketplaces and face the full cost of ACA-compliant plans. Under new 1332 waiver guidance issued by the Trump administration in November 2018, states can use waiver authority to provide subsidies to consumers purchasing short-term plans through private exchanges, expanding availability of these plans to a broader group of healthy individuals. However, wider availability of short-term plans risks driving up premiums in plans sold in the marketplaces, which will continue to cover consumers with pre-existing conditions and greater health care needs.

The Trump administration also extended grandmothered plans for another year, through December 2020.²⁰ Grandmothered plans are those that were issued after the ACA was signed into law in 2010 but before the insurance reforms went into effect in 2014. As such, they are not required to meet most of the insurance market reforms that took effect on January 1, 2014, including guaranteed issue, community rating, and coverage of essential health benefits. Grandmothered plans cannot be sold to new policyholders, but can remain in effect for people who bought them prior to 2014. The Obama

administration initially extended availability of these plans, and those extensions have continued under the Trump administration. Similar to short-term plans, because these plans were medically underwritten when enrollees originally purchased them, they are cheaper compared to ACA-compliant plans, and consumers enrolled in these plans are generally healthier.

State Regulation of Short-term and Grandmothered Plans

States are primarily responsible for regulating short-term and grandmothered plans. They can choose to adopt the federal regulations making these plans and policies more broadly available or they can place greater restrictions on these plans than required by federal regulation (Figure 2). States are nearly evenly divided in their approach to regulating non-ACA-compliant plans. Just under half (24) limit the availability of short-term or grandmothered plans in some way, while 27 permit the sale of these plans in line with federal regulations (Figure 2).²¹ Among the states that restrict the availability of these plans, 14 states and DC limit short-term plans to no more than six months and also prohibit insurers from selling grandmothered plans. An additional nine states limit short-term plans, but permit insurers to continue selling grandmothered plans. Idaho appears to be taking a somewhat unique approach to regulating short-term plans. In a draft rule issued on July 3, 2019, the state proposed creating a category of renewable short-term plans that may be offered for longer than six months, referred to as enhanced short-term plans.²² While these plans can medically underwrite premiums and impose an annual limit on coverage, they must be offered on a guaranteed issue basis, can be renewed by the enrollee for up to 36 months, and must offer benefits consistent with the ACA's essential health benefits.



Farm Bureau Plans

Three states, Iowa, Kansas, and Tennessee, allow Farm Bureaus to sell health coverage to individuals outside the marketplaces. These three states exempt Farm Bureau Health Plans from state insurance regulation, thus exempting them from the ACA's health insurance consumer protections.²³ Farm Bureau Health Plans have been available in Tennessee since 1993, while laws passed in Iowa in 2018 and in Kansas in 2019 have made them available in those states as well.²⁴ As with short-term plans, exempting Farm Bureau Health Plans from ACA insurance requirements means that premiums for these plans can be significantly lower than for ACA-compliant plans, providing relief from high premiums to those who are healthy enough to meet the plans' medical underwriting rules. However, that can also lead to adverse selection in the state-regulated individual insurance markets and drive up premiums for people with pre-existing medical conditions.²⁵ Repeal of the ACA's individual mandate penalty could lead to substantial increases in enrollment. Before the penalty was repealed, anyone enrolling in a Farm Bureau plan would have to pay the penalty because the plans did not meet the ACA's minimum requirements.

Discussion

Actions taken by states in recent years to address rising premiums in the marketplaces sharply differ, reflecting divergent views on the success of the ACA and the role states should play in enforcing the ACA insurance market standards. These state policy choices have implications for the future stability of the marketplaces as well as on the affordability and availability of comprehensive coverage for all residents.

To ensure coverage is available for healthy and sick alike, a number of states have adopted strategies aimed at shoring up the marketplaces and enforcing ACA standards by limiting the availability of coverage outside the marketplaces. These states have sought to lower premiums using levers such as reinsurance programs or enhancing subsidies. One of the challenges states face with these approaches is the need for state financing. States are able to access federal funding through section 1332 waivers; however, an investment of state resources is necessary to have a meaningful effect on lowering premiums. Although reinsurance programs, in particular, have broad bipartisan appeal, the need for state financing has likely precluded more states from implementing these programs. Additionally, while other actions, such as establishing a state individual mandate or public plan option, may not require an investment of money, they require political consensus that may be hard to achieve in other states.

Importantly, state decisions over whether or how to regulate non-ACA-compliant plans will have significant implications for moderate-income consumers with pre-existing conditions. In states that allow non-ACA-compliant policies to proliferate as lower cost alternatives to qualified health plans for people who are currently healthy, adverse selection in the marketplaces will likely continue to drive up premiums. While consumers with lower incomes who are eligible for subsidies will be insulated from any premium increases, consumers with health conditions who do not qualify for subsidies may end up without any affordable coverage options.

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The Secret of Health Care Prices: Why Transparency Is in the Public Interest

JULY 2019



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About the Foundation

The California Health Care Foundation is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

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Executive Summary

In 2018, California lawmakers sought to design and create a state Health Care Cost Transparency Database, an all-payer claims database (APCD), to collect information on the cost of health care in the state. The law tasks the Office of Statewide Health Planning and Development (OSHPD) with designing a database to best fit the needs of the state. Of specific interest for this project, California's APCD may collect information about amounts paid for health care services, including data about negotiated rates between insurance plans and providers. Many health care providers and payers seek to maintain the confidentiality of these paid amounts as trade secrets, claiming their secrecy provides a competitive advantage. Yet the public has begun to demand greater price transparency in health care. This report examines the legal and economic implications of collecting and releasing these paid amounts, reviews the practices of existing APCDs, and concludes with recommendations for California's policymakers about best practices to ensure the effective use of increased transparency to control costs and increase access to health care services.

Part I of this report reviews trade secret statutes and case law regarding the protection of negotiated prices as trade secrets. While some negotiated prices may constitute trade secrets in some circumstances, trade secret law is extremely fact specific, and no court has definitively ruled on the issue of whether negotiated rates can be protected as trade secrets. Furthermore, even if a court finds that certain price information constitutes a trade secret, that protection is not absolute. State freedom of information acts and free speech protections can allow disclosure of trade secrets when disclosure of that information is in the public interest. Specifically, Part I demonstrates that California can allow or require disclosure of information that is in the public interest, including negotiated rates for health care services, as long as the state articulates the conditions and policies for disclosure at the time of data collection and follows state and federal patient privacy statutes.

Part II of the report presents economic evidence about when disclosing negotiated rates is in the public interest. Part II begins by explaining theories forwarded by economists and antitrust enforcers about how disclosure of negotiated rates in health care markets could facilitate price collusion and drive price increases. The report then reviews evidence demonstrating that in rare circumstances, in other industries and in other countries, mandated transparency reports have allowed tacit collusion. To date, however, no state with an existing APCD has experienced competitive harm, and, in fact, a decade of public disclosure of negotiated rates in New Hampshire resulted in increased competition and reduced prices for health care services.¹ Part II concludes that while disclosure of negotiated health care rates in some markets could theoretically result in price collusion and increased prices, concerns over disclosure of negotiated rates for health care services in California are likely overstated and can be mitigated by proper safeguards. Furthermore, this part of the paper discusses why, with appropriate safeguards, the procompetitive effects of APCDs are likely to outweigh any anticompetitive harms.

Part III compiles and compares the current and planned price dissemination practices for 18 states with mandatory APCD data collection programs. The variation in legislation and regulation governing APCD data release is discussed, and this information is summarized in a chart that includes collection and disclosure requirements. This research shows that the state has the legal authority to collect and, in many cases, disclose negotiated rates. All states with active APCDs collect information about paid amounts and release reports of aggregated information, but a few states, including Maine and New Hampshire, disclose plan- and provider-specific median paid amounts for the most commonly used health care services on publicly accessible websites. This part of the report also offers best practices for California based on the experience of other states.

Drawing from this research, Part IV makes the following recommendations for California as the state seeks to create an APCD that furthers the legislative intent of increased transparency in health care pricing:

- 1. OSHPD should provide all data submitters with clear information and policies regarding data release prior to data collection.** Data collected from other state agencies may be subject to confidentiality agreements and require amendments to the Knox-Keene Act and California Public Records Act.
- 2. OSHPD should create a data release committee and declare that all information submitted to the APCD will be released in accordance with data release guidelines at the discretion of the data release committee.** To avoid any claim of trade secret misappropriation, OSHPD should inform data submitters that decisions regarding confidentiality and data release will be made by the data release committee to avoid the expectation that labeling data as confidential will prevent disclosure of that data.
- 3. The data release committee should establish guidelines for data release that weigh competitive effects and public interest.** Specifically, the committee should release data only when the pro-competitive effect of the data release or the public interest outweighs the anticompetitive effect.
- 4. The data release committee should implement a tiered data release policy, which would base oversight and access to data on the data requested and the nature of the requester.** The committee should review requests for data containing negotiated payment amounts on the basis of the nature of the entity making the request, the justification for the request, the proposed usage of the data, the nature of the information requested, the requesting entity's technical and physical safeguards for maintaining the security of the data files, and whether the entity has misused data or violated prior data use agreements. For example, a tiered data release policy could include these provisions:

- ▶ **Tier 1: Data release to the public.** OSHPD releases price reports and other consumer- or policy-relevant findings on a publicly available website. Some aggregated and/or anonymized data should also be available to the public.²
- ▶ **Tier 2: Data release to academic or governmental entities.** The committee should presume data requests from academic or governmental agencies to be procompetitive. These requests should be limited to the minimum data sets necessary to conduct the proposed research and subject to a data use agreement (DUA) that would allow only anonymized or aggregated data to be included in published study results without committee approval.
- ▶ **Tier 3: Data release to private entities or industry participants.** Industry participants and other private entities may request additional data from the APCD. The committee should consider comments from other industry participants and competitors before releasing data. Released data should be the minimum amount needed based on the reason for the request, and the requester should be required to demonstrate why the aggregated and anonymized data are insufficient for the requester's intended use.

To streamline data review, the committee could consider allowing the committee chair to review Tier 2 requests or Tier 3 requests that do not include negotiated rates. The committee chair could then approve these requests or pass them on to the committee for further review.

- 5. The data release committee should establish a data use agreement that provides requirements for accessing data.** The DUA should require that the data be used only for the approved use, that the recipient keep all nonpublic data confidential unless nonconfidentiality is approved by the committee, and that the recipient of the data implement appropriate privacy and encryption protections. The DUA should establish civil monetary penalties for using the data in illegal ways, including misappropriation, intentional and unauthorized data

release, and price-fixing or collusion, and should exclude offending individuals, institutions, and companies from accessing APCD data for up to 10 years or more. The DUA should include procedural guidance for inadvertent data release and require data recipients to indemnify the state of California and OSHPD for any misuse or misappropriation of released APCD data.

6. OSHPD or its designee should monitor annual claims data for anticompetitive behavior. OSHPD should look for evidence of tacit collusion or price shadowing, especially in highly concentrated markets, and should remove data from public display if anticompetitive effects are found.

Introduction

In 2018, California lawmakers sought to enhance price transparency by passing Assembly Bill 1810 to create a Health Care Cost Transparency Database. By establishing an all-payer claims database (APCD), the legislature aimed to “provide greater transparency regarding health care costs, and . . . [to use the data] to inform policy decisions regarding the provision of quality health care, reduce disparities, and reduce health care costs . . . [and] to encourage health care service plans, health insurers, and providers to use such data to develop innovative approaches, services, and programs that may have the potential to deliver health care that is both cost effective and responsive to the needs of enrollees, including recognizing the diversity of California and the impact of social determinants of health.”³

California’s Office of Statewide Health Planning and Development (OSHPD), with guidance from the Healthcare Payments Data Program Review Committee, must design data collection and release policies to fulfill the legislature’s intent. To assist in that design, this report examines the legal and economic implications of different data release strategies and reviews the current data release practices of existing APCDs to provide recommendations for policymakers. The research in the report shows that the state

has the legal authority to collect and, in many cases, disclose negotiated rates. All states with active APCDs collect information about paid amounts and release reports of aggregated information, but a few states, including Maine and New Hampshire, disclose plan- and provider-specific median paid amounts for the most commonly used health care services on publicly accessible websites.

This report is divided into three parts, which can be read independently. Part I reviews trade secret statutes and case law and concludes that although some negotiated prices may constitute trade secrets in some circumstances, not all disclosures of negotiated prices will result in a misappropriation of trade secrets. Specifically, California can allow or require disclosure of information that is in the public interest, including negotiated rates for health care services, as long as the state articulates the conditions and policies for disclosure at the time of data collection and follows state and federal patient privacy statutes.

Some economists and antitrust enforcers, however, have theorized that disclosure of negotiated rates in health care markets could facilitate price collusion and drive price increases. Part II reviews these theories and the related evidence. To date, no state with an existing APCD has experienced competitive harm. In fact, a decade of public disclosure of negotiated rates in New Hampshire resulted in increased competition and reduced prices for health care services in that state.⁴ As a result, competitive concerns over disclosure of negotiated rates in California may be overstated, but should still be protected against, especially in highly concentrated provider markets.

Part III of this report compiles and compares the current and planned price dissemination practices for 18 states with mandatory APCD data collection programs. This part of the paper discusses the variation in legislation and regulation governing APCD data release and summarizes the information in a chart that includes collection and disclosure requirements. Finally, Part IV presents recommendations and best practices for California as it designs and implements a Health Care Cost Transparency Database.

I. Legal Protection for Trade Secrets

Trade secret protection is a legal construct designed to benefit society by promoting innovation.⁵ Throughout history, trade secret law has protected key business information, such as the Coca-Cola formula and the Google search algorithm, from theft and misappropriation to the detriment of the trade secrets' creators and inventors. Over time, trade secret protections have expanded to protect a much broader set of information, but the exact boundaries of these protections have not been clearly defined.⁶ This section discusses state and federal statutes and case law related to the protection of negotiated prices as trade secrets. Trade secret law is highly fact specific, and, to date, no court has definitively held that negotiated rates between health care providers and insurers constitute trade secrets. Furthermore, even if a court finds that certain price information constitutes a trade secret, that protection is not absolute. This part of the report also explains how and when state freedom of information acts and free speech protections allow disclosure of trade secrets in the public interest.

Establishing Trade Secret Protection

Historically, trade secret law primarily arose from common law established in property, tort, and contract law cases.⁷ Over time, however, trade secret protections have been codified in both state and federal statutes.

State Trade Secret Law

In 1979, the Uniform Law Commission (ULC) published the Uniform Trade Secrets Act (UTSA) to codify state trade secret protection. As of 2018, every state except New York and North Carolina had adopted some form of the UTSA.⁸ According to the definition in the current UTSA, a **trade secret** is "information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (a) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and

(b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."⁹

Many states, however, modified the UTSA, so that trade secret law varies considerably among states.¹⁰ Meaningful variations exist among state laws including in the definition of "trade secret"; what constitutes "reasonable measures" to prevent disclosure; what constitutes "readily ascertainable information"; the applicable statute of limitations; and the amount of damages available for trade secret misappropriation, including the availability of punitive damages.¹¹ Nonetheless, the foundations of the UTSA remain largely similar.

The UTSA also prohibits the misappropriation of trade secrets, which can occur in several ways. First, an individual can misappropriate a trade secret by acquiring information that the individual knows or has reason to know was obtained by improper means, which include theft, bribery, misrepresentation, breach of a duty to maintain secrecy, or espionage through electronic or other means.¹² Second, an individual can misappropriate a trade secret by (a) disclosing or using a trade secret obtained by improper means; or (b) disclosing or using a trade secret that the individual knew or had reason to know was derived from improper means, acquired under circumstances that gave rise to a duty to maintain the trade secret's secrecy or limit its use, or derived from or through a person who had a duty to maintain the trade secret's secrecy or limit its use.¹³ These provisions form the foundations of modern-day trade secret protections. For APCDs and other state databases, therefore, the greatest risk for trade secret misappropriation claims arises when the state disseminates data that it acquired subject to a duty of confidentiality. In the data collection process, therefore, the state should make clear that the data submitter will not be able to assert confidentiality protections for any data submitted to the database.

California Trade Secret Protection

California adopted the California Uniform Trade Secret Act (CUTSA) in 1984 and modified the UTSA in ways that may both broaden and narrow the scope of trade secret protection for negotiated reimbursement

rates between health care providers and insurers. The CUTSA defined a trade secret as follows: “information, including a formula, pattern, compilation, program, device, method, technique or process, that: (a) [d]erives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from disclosure or use; and (b) [i]s the subject of efforts that are reasonable under the circumstances to maintain its secrecy.”¹⁴ Notably, the California law deviates from the UTSA’s definition of trade secret by not exempting from trade secret protection information that is “readily ascertainable by proper means.” This change implies that information could constitute a trade secret even if others could obtain the same information through proper means.¹⁵ As a result, the California law protects a broader swath of information than the UTSA does.

The California law also deviates from the UTSA in the definition of “improper means.” The CUTSA states specifically that “reverse engineering or independent derivation alone shall not be considered improper means.”¹⁶ Certain forms of reverse engineering or independent derivation may be considered so difficult that information obtained that way is not considered “readily ascertainable”, and therefore this information may be offered trade secret protection under the UTSA, but not under the CUTSA. In particular, because California does not consider reverse engineering alone to be “improper means,” in situations in which reverse-engineered information is not readily ascertainable, the scope of trade secret protection in California may be narrower than under the UTSA. This distinction may prove relevant to negotiated rates between health care providers and insurers. Specifically, one may not consider a full hospital price list obtained from numerous Explanation of Benefits forms sent to patients to be readily ascertainable; however, if someone actually did create such a list independently, use or disclosure of that list would not be considered a misappropriation of trade secrets.

Federal Trade Secret Protection

In 2016, amid growing fears of international trade secret theft, Congress enacted the Defend Trade Secrets Act of 2016 (DTSA)¹⁷ to fortify perceived weaknesses in some state trade secret protections by crafting a cohesive federal intellectual property policy. The DTSA defines **trade secrets** as “all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if — (A) the owner thereof has taken reasonable measures to keep such information secret; and (B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information.”¹⁸

With one exception,¹⁹ the DTSA explicitly states that it does not preempt state trade secret law, but rather serves to make available an alternative venue for trade secret holders to seek remedies for trade secret misappropriation. As a result, the DTSA essentially creates a national minimum standard for what constitutes a trade secret, while states are allowed to adopt broader definitions.

The creation of the DTSA therefore offers plaintiffs the opportunity to shop for both jurisdiction and law in trade secret cases. For instance, plaintiffs in California can bring a claim for misappropriation of trade secrets in federal court for violation of the DTSA, or in state court for violation of the CUTSA.²⁰ If someone disclosed information that met California’s definition of a trade secret but did not meet the DTSA’s definition because the information was reasonably ascertainable by proper means, the owner of the trade secret could still file a claim against that person in California, as long as the business or defendant was located there or harm was suffered there.²¹ The DTSA shifts the balance of

power to the trade secret owner, who can now choose between federal law and any applicable state laws when deciding where to pursue a case; often, the trade secret owner will select the venue where greater damages are available or more favorable case law applies.

Prices as Trade Secrets

Even a critical reading of the trade secret statutes leaves ambiguity about whether negotiated prices can be trade secrets. While insurers and providers claim there is economic value in negotiated fee schedules and that reasonable measures are taken to maintain their secrecy, the validity of these claims remains largely untested. In fact, the research for this report did not uncover a single case in which a court directly ruled that negotiated payment rates between insurers and providers constitute trade secrets. Nonetheless, the general assumption of confidentiality in negotiated rates may lead courts in future cases to determine that these rates are trade secrets. Trade secret determinations depend heavily on the particular facts in any given case; therefore, even a clear determination in one case that negotiated payment rates between providers and insurers constitute a trade secret would not settle the issue for all future cases.

Courts that have examined this issue indirectly have done little to un muddy the waters. In certain cases, while not reaching the issue of whether prices constitute a trade secret, courts have been willing to use protective orders to maintain the secrecy of negotiated price information to overcome provider resistance to discovery. For example, in *Children's Hospital v. Blue Cross of California*, Children's Hospital argued that its contracted rates with other health insurance plans were not discoverable because disclosure of these rates would disclose proprietary financial information and trade secrets.²² The court held that the hospital's concerns could be "handled through appropriate protective orders" (i.e., the information could be submitted under seal) and remanded the case for retrial without conducting an analysis of whether these prices amounted to trade secrets.²³

Other courts have opined on whether negotiated rates constitute trade secrets but have not made formal determinations because other laws, commonly state public record acts, clearly established a duty to disclose. For instance, the Pennsylvania Supreme Court, in *Com., Dep't of Pub. Welfare v. Eiseman*, expressed doubt that negotiated rates between managed care organizations that administered the state Medicaid program and dental providers met the definition of a trade secret under the UTSA and Pennsylvania's state trade secret law, stating "[i]nitially, we observe that contractual payment rates are not a close fit with the concept of a 'trade secret,' as it is substantially debatable whether such rates are in the nature of a 'formula, drawing, pattern, compilation including a customer list, program, device, method, technique, or process.'"²⁴ The Pennsylvania Supreme Court, however, held that even if those lists were trade secrets, Pennsylvania's Right to Know Law exempts financial records of public agencies from trade secret protection.²⁵

Similarly, the North Carolina Court of Appeals considered whether negotiated prices in public hospital agreements with health maintenance organizations (HMOs) constitute trade secrets in *Wilmington Star-News, Inc. v. New Hanover Regional Medical Center, Inc.*²⁶ In *Wilmington Star*, the court noted that, at the time of the opinion in 1997, "[n]o decisions in North Carolina have concluded that a negotiated price list is a trade secret within the meaning of [trade secrets as defined in North Carolina law,] G.S. 66-152(3)."²⁷ The court then used the six factors listed in the Second Restatement of Torts to consider whether the negotiated pricing lists in the case could be trade secrets.²⁸ In contrast to the court in *Eiseman*, the court in *Wilmington Star* concluded that "a reasonable trier of fact could conclude that the price lists were trade secrets."²⁹ Although this conclusion would have been sufficient to have the court consider whether the negotiated price lists constituted trade secrets, the court did not do so, because it held that the North Carolina's Public Records Act required disclosure of the price lists irrespective of their trade secret status.³⁰

The case law demonstrates that trade secret protection for negotiated hospital prices remains largely undefined, with many courts deciding these cases on other grounds. As a result, it remains uncertain whether and under what circumstances negotiated rates between providers and insurers constitute trade secrets, and a court's decision will depend largely on the facts of any particular case.

The Duty to Keep Confidential and the Risk of Misappropriation

Furthermore, trade secrets laws do not prohibit the disclosure of all trade secrets; instead, they prohibit the "misappropriation" of trade secrets. The UTSA definition of "misappropriation" includes "disclosure or use of a trade secret of another without express or implied consent by a person who . . . at the time of disclosure or use, knew or had reason to know that his knowledge of the trade secret was . . . acquired under circumstances giving rise to a duty to maintain its secrecy or limit its use."³¹ As a result, an entity (such as a state APCD) must not disclose information that it expressly or impliedly agreed to keep confidential. For example, in *Emergency Care Research Inst. v. Guidant Corp.*, a medical device manufacturer, Guidant, argued that a nonprofit health services research company that acquired and published price lists for medical devices from hospitals misappropriated trade secrets by obtaining the confidential prices Guidant charged hospitals.³² The court held that trade secret protection depended on Guidant's efforts to require hospital purchasers to keep prices confidential.³³

Contractual agreements or statutory provisions requiring a state APCD to keep information confidential create a duty to do so, which can make disclosure of such information a misappropriation of trade secrets. Even in the absence of direct contractual or statutory language ensuring the confidentiality of particular information, courts have also supported the creation of an "implied duty of confidentiality" when statutory or contractual language suggests such a duty.³⁴ As a result, state APCDs must be very specific at the time of data collection regarding confidentiality and the specific guidelines for data release.

To avoid claims of misappropriation, California also should take precautions when linking any data from outside sources to the APCD. In certain circumstances, California has already agreed to protect the confidentiality of negotiated rates between health care providers and payers; these rates must be distinguished and kept separate from APCD data submitted to the Office of Statewide Health Planning and Development (OSHPD). Specifically, with respect to rate review information submitted to the California Department of Managed Health Care (DMHC), the Knox-Keene Act states that "[t]he contracted rates between a health care service plan and a provider shall be deemed confidential information that shall not be made public by the department and are exempt from disclosure under the California Public Records Act."³⁵

Furthermore, the California Public Records Act (CPRA) contains provisions that keep certain contracts between the Department of Health Care Services and providers of inpatient health care services confidential for one year, except for any portion of the contract that contains the rates of payment, which is kept confidential for four years.³⁶ For these reasons, California should not directly deposit in the APCD information collected by other agencies or for other purposes, because releasing that information, with its presumption of confidentiality, may risk claims of trade secret misappropriation. Instead OSHPD should directly collect the information, stating clearly how and when data will be released and that confidentiality determinations will be made solely by the data release committee.

Although sections of the Knox-Keene Act and the CPRA allow negotiated rates to be kept confidential, these laws did not have the purpose of promoting price transparency to improve health care markets, so legislators did not consider the procompetitive potential of an APCD when drafting the laws. Even if negotiated rates between providers and insurers constitute a trade secret, trade secret protection is not absolute. States can disclose information gathered by a state entity via the state public records act or if disclosure serves a public purpose.

Public Interest in Prices

State courts have noted that “[t]he UTSA contains no specific exemption of trade secrets from public disclosure laws.”³⁷ As a result, state freedom of information statutes or public records acts can require public access to information otherwise considered a trade secret.³⁸ In addition, the decisions in *Eiseman* and *Wilmington Starr* demonstrate that states can pass laws to enable state agencies to disclose information that might otherwise be considered a trade secret. As a result, states have begun to specify instances that warrant disclosure of trade secrets either through public records requests or public interest exemptions to trade secret protection.

Currently, California has a public interest exemption to the CPRA that allows the state to refuse to disclose information that the CPRA would ordinarily require be disclosed, if “on the facts of the particular case, the public interest served by not disclosing the record clearly outweighs the public interest served by disclosure of the record.”³⁹ This provision grants the state the ability to refuse to disclose any information submitted when disclosure of the information would harm the public interest. This provision would serve to protect against the kind of competitive harms health care providers, insurers, and antitrust enforcers warn may arise from APCD disclosure of negotiated health care rates.

On the other hand, the CPRA does not include a public interest exemption that would allow the state to disclose otherwise protected information in the name of the public interest. Yet California courts have created such an exemption in instances where the First Amendment interests of the public outweigh the quasi-property rights of the business holding the information. In *O’Grady v. Superior Court*, the court held that that California trade secret law was intended to promote innovation but was not absolute when disclosure of information benefited the public.⁴⁰ Specifically, the court held that the reporter’s shield law protected a news website that published confidential marketing materials, even if those materials were obtained by an employee who passed trade secrets to the website. The court stated, “It is true that trade secrets law reflects a judgment that providing legal protections

for commercial secrets may provide a net public benefit. But the Legislature’s general recognition of a property-like right in such information cannot blind courts to the more fundamental judgment, embodied in the state and federal guarantees of expressional freedom, that free and open disclosure of ideas and information serves the public good. When two public interests collide, it is no answer to simply point to one and ignore the other. . . . [W]hatever is given to trade secrets law is taken away from the freedom of speech. In the abstract, at least, it seems plain that where both cannot be accommodated, it is the statutory quasi-property right that must give way, not the deeply rooted constitutional right to share and acquire information.”⁴¹ While this case concerns the right of a newspaper to publish information, the case identifies the limits to trade secret protection when disclosure is in the public interest.

In summary, trade secret law is highly fact specific, and courts have not definitively stated that negotiated rates between health care providers and insurers constitute trade secrets. Furthermore, even if a court finds that certain price information constitutes a trade secret, protection of the trade secret is not absolute. States can allow or require disclosure of information in the public interest as long as they articulate the conditions and policies for disclosure at the time of data collection. California has the authority to collect and disclose negotiated rates for health care services as long as the state follows state and federal patient privacy statutes. With that knowledge, California should seek to determine when the public benefit of disclosure of negotiated rates outweighs any anticompetitive harms.

II. Economic Concerns About Transparency for Negotiated Rates

Standard economic theory reasons that price transparency benefits the public interest by allowing consumers to compare prices, by increasing competition, and by lowering overall spending.⁴² Following this logic, disclosure of health care prices through an all-payer claims database (APCD) should serve the public interest by improving the market, leading to lower and more uniform prices. Some experts, however, have expressed concern that additional price transparency could lead to price increases in some health care markets.

The Potential for Anticompetitive Pricing

In theory, disclosure of negotiated provider rates in markets with high levels of health care provider concentration⁴³ and weak consumer response to disclosure of health care pricing data⁴⁴ may facilitate provider collusion by enabling a provider receiving a lower rate than a competitor (often a dominant provider) to “shadow price” the higher-cost peer, raising prices and expenditures overall.⁴⁵ For example, economists Cutler and Dafny describe a hypothetical situation in which a well-regarded hospital contracts with two insurers and offers a lower price to Insurer 1 because otherwise Insurer 1 would steer patients to a different institution: “If the hospital must publicly reveal both prices, it will be less likely to offer the low price to Insurer 1, because Insurer 2 would then pressure the hospital to lower its price as well.”⁴⁶ In this case, disclosure of negotiated rates publicly or to a competitor “would create a perverse incentive for the hospital to raise prices (on average), and as a result, its rivals could do the same.”⁴⁷ Cutler and Dafny acknowledge that the ability to raise prices in response to price transparency requires sufficient market leverage by the buyer (to steer patients) or the supplier (to demand the price increase), but these situations are common in highly concentrated health care markets.

In a companion paper, Sinaiko and Rosenthal also acknowledge the potential for shadow pricing or increased costs following the advent of price transparency, but these authors express doubt that the increased prices would persist over time. The authors note that “[i]n reasonably competitive provider markets, purchasers and health plans should be able to use price information to pressure providers to lower their prices or to improve the efficacy of tiered networks or other similar efforts.”⁴⁸

Evidence of Price Increases Following Increased Transparency

Until very recently, little empirical evidence existed on the impact of greater price transparency in health care, so researchers and federal regulators relied on evidence from other markets to predict how price transparency initiatives would affect prices for health care services. Specifically, many experts have cited the experience of Danish antitrust authorities, who in 1993 began publishing invoice prices for concrete because the highly concentrated supplier market allowed companies to charge widely varying prices to buyers that lacked market power.⁴⁹ In the year following the disclosures, prices in one region rose 15% to 20% as the concrete sellers raised the prices to the highest rate for all buyers.

More recently, economists Byrne and de Roos have described how a government website that posted daily prices for gasoline allowed Australian gas companies to engage in “tacit collusion” by signaling future price increases and raising prices in concert without direct communication.⁵⁰ Over a period of six years, a dominant firm, BP, used price signaling to “coordinate market prices, soften price competition, and enhance retail margins.”⁵¹ Rather than offering a cautionary example, however, Byrne and de Roos argue that their “study highlights the value of detailed data for informing antitrust investigations into conduct.” While transparency may offer a chance for price collaboration in specific markets, transparency may also be the best tool for identifying and validating suspected anticompetitive conduct that might otherwise go unnoticed. Similarly, in discussing price transparency the Maine

Health Data Organization (MDHO) acknowledged both a concern about concerted price increases and also the potential for the state’s APCD to identify price shadowing, stating that “[e]ven without overt price-fixing or illegal conduct price transparency may lead to price uniformity at the highest level. . . . Ironically, [though] any tacit collusion would likely appear in the MHDO data.”⁵²

These examples demonstrate the potential for price transparency to be exploited by oligopolistic suppliers in order to increase prices.⁵³ These examples, however, are atypical of health care price transparency efforts and may have minimal correlation with US health care markets. First, the quality of health care services, unlike concrete and gasoline, is highly differentiated, and providers compete on dimensions other than cost. Second, health care consumers often have strong loyalty to their existing providers and are less price sensitive. Third, the costs of health care services are typically negotiated on an annual basis, rather than daily (like gasoline) or at the time of the sale (like concrete), making rival price matching or tacit collusion much more difficult. Fourth, annual health care price negotiations are often informed by a range of factors, including experience of the group, changes in coverage benefits, and legal changes making the kind of direct signaling done by BP in the Australian example much more difficult to detect and mimic. Nonetheless, APCDs that release negotiated health care claims data should weigh these concerns about price collusion and overall rate increases in their data release decisions.

Federal Trade Commission and Department of Justice Antitrust Enforcement Policy Statement 6

In Statement 6 of the 1996 Antitrust Enforcement Policy in Health Care, the Federal Trade Commission (FTC) and the Department of Justice (DOJ) (“the Agencies”) provided guidance on the use of surveys to allow health care providers to exchange price data.⁵⁴ The Agencies immediately acknowledged the “significant benefits” of such surveys for both health

care consumers and providers, who “can use information derived from price and compensation surveys to price their services more competitively.”⁵⁵ The Agencies also noted that the price survey information could help purchasers make more informed decisions when buying health care services.⁵⁶

The Antitrust Safety Zone

The Agencies did, however, express some concern that “[w]ithout appropriate safeguards” price information exchanges among competing providers could facilitate collusion or reduce price competition.⁵⁷ As a result, the Agencies identified an “antitrust safety zone” and agreed not to challenge the exchange of price and cost information among competing health care providers “absent extraordinary circumstances,” if the following conditions were met:

- ▶ The survey was managed by a third party (e.g., a purchaser, a government agency, or an academic institution);
- ▶ The data provided were more than three months old; and
- ▶ At least five providers reported data on each disseminated statistic, no individual provider’s data represented more than 25% of each statistic, and disclosed information was sufficiently aggregated to avoid identification of any particular provider.⁵⁸

The Agencies stated that they designed these conditions to ensure that the exchange of cost or price data would not be used by competing providers to engage in price collusion. The conditions “represent a careful balancing of a provider’s individual interest in obtaining information useful in adjusting the prices it charges . . . against the risk that the exchange of such information may permit competing providers to communicate with each other regarding a mutually acceptable level of prices.”⁵⁹

Exchanges of information that do not meet these conditions may still be lawful even though the exchanges fall outside of the antitrust safety zone. The Agencies stated that they will evaluate exchanges of price and

cost information that fall outside the safety zone “to determine whether the information exchange may have an anticompetitive effect that outweighs any procompetitive justification for the exchange.”⁶⁰ For instance, the Agencies noted that “[d]epending on the circumstances, *public, non-provider initiated surveys may not raise competitive concerns*” and may provide information that purchasers can use for procompetitive purposes.⁶¹ Importantly, the Agencies clearly distinguished between exchanges of future prices for provider services, which “are very likely to be anticompetitive,”⁶² and exchanges of current or prior prices. Despite the fact that Statement 6 is more than 20 years old and in need of updating to reflect modern health care markets, the statement remains the best guidance state APCDs have to guide their disclosure practices.

The Example of Minnesota

In 2014, Minnesota revised the Minnesota Government Data Practices Act (MGDPA) by reclassifying health plan provider contracts with state agencies as “public data.”⁶³ In response to a request, the FTC’s Office of Policy Planning “recognize[d] the laudable goals of the MGDPA, including improving government accountability via increased transparency with respect to the use of public funds in government contracting,” but also warned that “greater price transparency in concentrated health care markets may impede, rather than enhance, the ability of the Health Plans in Minnesota to selectively contract with health care providers and to negotiate lower reimbursement rates.”⁶⁴ Because Minnesota did not host a consumer-facing webpage and did not disclose the information in a consumer-friendly way, few procompetitive effects existed to outweigh the anticompetitive risks. As a result, the FTC urged Minnesota to consider focusing its transparency efforts on the types of information important to consumers, while cautioning against public disclosure of negotiated fee schedules in Minnesota’s highly concentrated provider markets.

The Example of California

In contrast to the Minnesota example, the DOJ Antitrust Division supported a database created by the Pacific Business Group on Health, the California Public

Employees Retirement System, and the California Health Care Coalition. The database was created to collect claims data from hospitals and provide de-identified hospital rate indexes to member organizations, which would inform employers about how their negotiated prices compared with the average prices. The DOJ concluded that this type of disclosure “is not likely to produce any anticompetitive effects. . . . Rather, the most likely effect of [the database] is that greater information about the relative costs and utilization rates of hospitals in California will lead payors and employers to make more informed decisions when purchasing hospital services.”⁶⁵

These examples demonstrate that while acknowledging a risk of tacit collusion from complete transparency of all contracted information in highly concentrated markets, the Agencies often find procompetitive benefits in transparency initiatives and data releases that enable consumers and payers to comparison shop for higher-value health care. State APCDs also often use this balancing of pro- and anticompetitive effects to inform data release decisions.

The Example of Colorado

Colorado requested legal advice to analyze the implications of Statement 6 for the release of negotiated rates by the Center for Improving Value in Health Care (CIVHC), the entity that administers the Colorado APCD.⁶⁶ CIVHC’s attorney found that “[m]ost reports and analytic data sets generated based on APCD data would fall within the antitrust Safety Zone because they can be designed to meet all three conditions [of Statement 6].”⁶⁷ Conditions 1 and 2 are easily satisfied by state APCDs. For their own reporting and data dissemination, APCDs can largely satisfy condition 3 through use of price aggregation, medians, or averages. CIVHC’s legal analysis also argues that reports or data sets that fall outside the safe harbor because they fail to sufficiently de-identify the provider “would generally be lawful and are highly unlikely to be challenged by the Agencies because they will have little or no anticompetitive effect and may have substantial procompetitive benefits.”⁶⁸ This argument is also persuasive in California.

The Role of a Data Release Committee

Concerns regarding provider and price identification arise in highly concentrated markets that do not have sufficient provider numbers to conceal identity and when the requested disclosure includes raw data on provider- and payer-specific pricing information. In these instances, a data release committee can provide valuable analysis and review of the potential pro- and anticompetitive effects of a particular data release request, including receiving input from the Agencies regarding the potential impact. Furthermore, the CIVHC analysis found that APCD reports would be unlikely to cause anticompetitive harms that outweigh procompetitive benefits unless “competitor recipients of the reports used the information to enter into price-fixing agreements.”⁶⁹ If anticompetitive harms do occur, state action immunity⁷⁰ and indemnity clauses in data use agreements will shield state agencies from liability. Overall, state APCDs should be able to issue reports and analysis designed to remain within the safety zone, and then institute policies and guidelines for use by a data release committee in balancing the pro- and anticompetitive implications of releases that fall outside the safety zone.

Evidence of Procompetitive Effects from Disclosure of Negotiated Prices

Overall, the history of data releases by APCDs supports the notion that responsible data release policies can stem anticompetitive harm while harnessing the potential procompetitive benefits of releasing price data, including negotiated reimbursement rates. Recent evidence from some of the oldest APCDs suggests that disclosure of negotiated rates can increase competition and reduce costs.

The Example of New Hampshire

In particular, in 2007 New Hampshire created HealthCost, a publicly accessible website that lists provider- and insurer-specific median amounts paid for common health care services to encourage patients to comparison shop for care. An initial analysis of health care prices in 2009 showed that HealthCost had almost no impact on prices or price variation across providers.⁷¹

Few patients price shopped for care, and many payers had difficulty using the information effectively in negotiations.⁷² Nonetheless, over the next decade, HealthCost proved influential in reducing prices.⁷³

Specifically, recent economic analysis by Zach Brown found that HealthCost reduced the price of medical imaging procedures in New Hampshire, saving individuals \$7.9 million and insurers \$36 million over five years.⁷⁴ These savings resulted from both a small number of patients choosing lower-cost providers and also a “significant reduction in negotiated prices” as providers lowered their prices to maintain market share.⁷⁵ Perhaps most encouragingly, the price decreases were largest in regions with the most highly concentrated markets (those with a Herfindahl-Hirschman Index above the fourth quartile).⁷⁶ Brown’s study found that “price transparency put the most downward pressure on prices in markets where price cost margins were likely the highest,”⁷⁷ suggesting that even patients who do not price shop can benefit from the increased competition from public databases. During the first year HealthCost listed prices, Brown found almost no effect, but prices dropped significantly after three years or longer. This delayed price response likely results from supply-side effects, such as provider price reduction and changes in health plan design, which take longer to materialize because of annual contracting cycles.

In addition to increasing competition for shoppable services like medical imaging, HealthCost highlighted wide geographic variations in provider prices, especially for hospital outpatient departments.⁷⁸ As a result, “the balance of plan-provider negotiating power began shifting significantly . . . [as the database] highlight[ed] wide variation in hospital prices.”⁷⁹ Analysts credit the state APCD for providing evidence of high-outlier prices at one hospital system in the state. The intense public scrutiny that followed allowed one of the state’s largest insurers to demand significantly lower rates with that facility. “As one market observer suggested, ‘The sunshine effect [of price transparency] . . . changed the ground rules [of plan-provider contracting]. . . There’s recognition now that contractual negotiations are going to be somewhat in the public eye, in a way they never were in the past.’”⁸⁰

Experts also credit HealthCost with catalyzing the shift to new benefit designs to reward higher-value care, including tiered copayments.⁸¹ In response to the tiered copayments, many hospitals offered laboratory services at facilities with lower pricing structures than the hospitals' outpatient departments and negotiated lower payment rates for some services to qualify at the lowest cost tier. Perhaps most importantly, public price transparency has "helped inject competition into the rural critical-access hospital market. These hospitals have long held geographic monopolies, and until the new benefit designs incentivized consumers to travel to minimize out-of-pocket costs, there had been little reason for the hospitals to compete on price."⁸²

The Example of Maine

While experts have most carefully studied the results from New Hampshire's APCD, the state's experience is consistent with results in other states. According to Karynlee Harrington, director of the Maine Health Data Organization (MHDO), Maine has released raw claims data with negotiated rates to numerous stakeholders, including competitors, for more than 10 years.⁸³ MDHO reports that "[t]o date, there is no evidence that the release of MHDO claims data has resulted in an anticompetitive market. In fact, quite the opposite, . . . transparency is what fosters a competitive market."⁸⁴

Increased Price Competition

Overall, this research suggests that although theoretically providers may be able to use price transparency to leverage competitors' negotiated rates and demand higher reimbursement rates, that concern has not materialized in the health care context. Rather, such transparency-driven price collusion has occurred only in isolated incidents in very different foreign markets. The extensive and detailed research on prices in New Hampshire, however, shows that transparency may be one of the few meaningful ways to increase price competition in these areas. Therefore, California should develop guidelines for public release of insurer- and provider-specific rates, with appropriate limitations, monitoring, and penalties for misuse.

III. Collection and Dissemination Policies of States with Mandatory APCD Programs

State all-payer claims databases (APCDs) vary in data collection and release procedures.⁸⁵ Generally, states have combated trade secret and anticompetitive concerns through strict data release procedures that limit the scope of data disclosures. Specifically, states have employed data release agreements and data release committees to analyze and protect confidential information. As explained in Parts I and II of this report, the risk of misappropriation of trade secrets is minimal for states that have clear release policies and, to date, release of data from an APCD has not been shown to increase health care prices. To assist California in designing an APCD that maximizes the procompetitive effects of price transparency, this paper offers recommendations for best practices based on analysis of the current practices of 18 states with mandatory APCD data collection programs.⁸⁶

Financial Information Commonly Collected

State APCDs collect many data elements relating to price and payment (see Table 1, page 16). Many states collect data based on the common data layout (CDL) developed by the APCD Council.⁸⁷ Uniformity in state data collection, including use of the CDL, may minimize the administrative burden on data submitters with claims data from multiple states. California should consider adopting similar collection practices as a baseline for uniformity, and then expanding upon the CDL baseline as needed. Many state APCDs collect more financial data elements than they release.⁸⁸ Among these data elements, all state APCDs except

Table 1. Financial Data Most Commonly Collected by APCDs

	AR	CO	CT	DE	HI	ME	MD	MA	MN	NH	OR	RI	UT	VT	WA
Paid amount (plan)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Allowed amount	✓		✓		✓		✓	✓		✓	✓				
Capitation / Prepaid amount (fee-for-service equivalent amount)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Charge amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cost sharing (copay, coinsurance, deductible)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dispensing fee amount	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Ingredient cost / List price	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Postage amount (for pharmacy)	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓	✓

Notes: This table includes financial information collected by at least three-quarters of state APCDs. The table excludes Florida, Kansas, and New York because those states do not have a data submission manual available online.

for those in Minnesota and Maryland collect and release the following five elements:

- 1. Paid amount.** The amount the insurer or health plan paid the provider (in addition, nine states release allowed amount: the maximum amount the insurer would pay for that service)
- 2. Charge amount.** The total charges billed for the service
- 3. Cost sharing of the consumer.** The amount of copay, coinsurance, and deductible the consumer paid
- 4. Dispensing fee amount.** The amount charged for dispensing a prescription
- 5. Ingredient cost / list price.** The amount charged for the drug that was dispensed

Public Release of Data

While APCD data collection is relatively uniform, states vary in their data release policies. Most states provide access to APCD data through a price transparency website or online data sets. Publicly available information typically includes aggregated price information by service and zip code. Maine and New Hampshire release the most comprehensive information on public

websites, including median payment and estimated total cost, respectively, by procedure, insurance carrier, provider, zip code, and plan type (individual and group). Washington publicly releases the range and average price of a service by zip code.⁸⁹ Even Minnesota, despite stating that it will keep all information nonpublic, offers public data sets upon request that include the aggregate amount paid for a specific claim (by the plan and the member) by age group (e.g., under 18 years old), procedure, and zip code.

Such public release of data has significant benefits for health care consumers. The experience of New Hampshire described in Part II of this report demonstrates how a consumer-facing price transparency website can facilitate price reductions. Further, the FTC’s response to the Minnesota Government Data Practices Act emphasizes the importance of consumer-facing initiatives that establish procompetitive benefits that surpass the potential for anticompetitive harms when creating state health care price transparency tools.⁹⁰ Because of the benefits that result from public disclosure, California should consider creating a similar price transparency website that details median prices by payer, provider, service, and zip code, as well as patient out-of-pocket expenses specific to the patient, plan, procedure, and provider.

Restrictions on Data Requests

In addition to the publicly accessible data, all states allow entities to request additional data. Nonetheless, to prevent the potential for anticompetitive use of the data discussed in Part II,⁹¹ states have adopted appropriate safeguards to ensure that when releasing data sets with information not available on a public website, the procompetitive benefits of the release outweigh the anticompetitive concerns.⁹² Specifically, to prevent potential anticompetitive use of the data, all states, to varying degrees, limit data release to specific data elements, entities, or purposes.

Limited Disclosure of Data Elements

Many states allow disclosure of most of the financial data elements the states collect (see Table 2). Specifically, Colorado, Utah, Washington, and Vermont allow the release of all financial data elements submitted. Maine allows release of all the financial data elements submitted except for the charge amount — the amount the provider charges the payer for the service — to prevent the calculation of charge/paid ratio. Rhode Island, in contrast, allows the release of all submitted financial data elements as well as calculating, for release, the allowed amount — the maximum amount that a carrier will pay to a provider for a particular procedure or service.

Disclosure for Limited Purposes

Some states, however, restrict data releases to specific purposes. For example, Washington requires data requesters to assert a public benefit justification, which may include the promotion of competition. Delaware allows access to “pricing information and other sensitive financial data elements” for the purposes of improving public health via a data release process.⁹³ On the other hand, New Hampshire releases data only for the purpose of research.⁹⁴

Disclosure to Limited Parties

Other states limit who can request data from the APCD. For example, in Colorado, only a “state agency or private entity engaged in efforts to improve health care quality, value or public health outcomes for Colorado residents” may request custom data.⁹⁵ Washington has a more complex scheme, releasing different levels of data elements to different categories of users: (a) researchers, (b) government agencies, (c) other agencies and entities, and (d) the public.⁹⁶ Such a tiering scheme allows the release of “proprietary financial information” only to researchers with institutional review board (IRB) approval, federal agencies, Washington state agencies, and local governments.⁹⁷

Table 2. Data Elements Most Commonly Available for Release by APCDs

	AR	CO	CT	DE	ME	MD	MA	MN	NH	OR	RI	UT	VT	WA
Paid amount (plan)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Allowed amount	✓	✓	✓			✓	✓		✓	✓	✓		✓	
Capitation / Prepaid amount (fee-for-service equivalent amount)	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓
Charge amount	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
Cost sharing (copay, coinsurance, deductible)	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Dispensing fee amount	✓	✓		✓	✓		✓		✓	✓	✓	✓	✓	✓
Ingredient cost / List price	✓	✓		✓	✓		✓		✓	✓	✓	✓	✓	✓
Postage amount (for pharmacy)		✓		✓	✓		✓		✓		✓	✓	✓	✓

Notes: This table excludes Florida, Hawaii, Kansas, and New York, which do not have a data dictionary or data release manual available online. For Minnesota, the “paid amount” field identifies the sum of all plan and member payments for encounters within this record’s utilization category.

Conversely, Maine has no prohibitions on who can request the data, but the state requires approval from its data release committee for release of most financial information. Massachusetts views data release to academic researchers as lacking potential anticompetitive effects and presumes that procompetitive benefits of the research outweigh the risk of causing anticompetitive behavior.

While other states allow limited disclosures by statute, statutory requirements may unnecessarily limit disclosures that could be procompetitive and publicly beneficial. To maximize the utility of its APCD, California should allow disclosure of all information upon review by a data release committee, in a process similar to the practices in Maine and Massachusetts. When making disclosure determinations, the review committee should consider the minimum data required to do the study, the purpose of the study, and the entity making the request. Furthermore, the committee should presume that requests from academic researchers and government agencies are procompetitive.

California should also consider adopting a tiered data release policy that improves upon Washington's tiering scheme. Tier 1 would comprise data releases to the public, including price reports and other consumer- or policy-relevant findings, on a publicly available website. Tier 2 would include data releases to government or academic researchers. While these data releases should be reviewed, they should be presumed to be procompetitive. Tier 3 would include data releases to private entities or industry participants. These requests would require review by a data release committee (described later, in "Data Release Committees and Data Use Agreements to Prevent Inappropriate Disclosures" on page 18) that considers the competitive effects of the requested data release.

Restrictions on Disclosure of Trade Secrets

In addition to imposing restrictions based on anticompetitive concerns, some states have limited the disclosure of information that submitters have labeled as trade secrets. For example, Florida allows data submitters to clearly designate information as a trade secret and then prohibits disclosure of that

information.⁹⁸ Oregon specifically prohibits disclosure of trade secrets⁹⁹ and specifies in its Data User Guide that "allowed amount" is "considered" a trade secret and "never or nearly never available for its request."¹⁰⁰ Oregon will disclose an "allowed amount" data element only after Department of Justice review.¹⁰¹ Delaware provides that "trade secrets and commercial or financial information . . . [are] of a privileged or confidential nature" and are not public records.¹⁰² As a result, data submitted to Delaware's APCD is not subject to public records requests but can be requested through the state's data release process.

Although some states allow designation of submitted information as trade secrets, this designation unnecessarily hampers transparency efforts. As demonstrated in Part I, states have the authority to release trade secrets with proper notification as long as the disclosure is in the public interest. As a result, California should not agree to keep confidential any information designated as a trade secret by a data submitter. Instead, Delaware's model, which allows disclosure of data through the data release committee but not through the state public records act, strikes a potential compromise. Rather than allowing complete access to the data by any party filing a public records act request, Delaware ensures that any data releases from the state APCD go through data release review. The state can thus ensure that appropriate protections for sensitive data are followed while allowing disclosure of information for academic and government research and procompetitive purposes.

California should consider similar provisions exempting APCD from the California Public Records Act, but the state should emphasize that the data release committee may disclose any data after proper review. California should empower its data release committee to disclose data when the committee determines that the procompetitive effects of doing so and the public interest outweigh any anticompetitive harms that might result.

Data Release Committees and Data Use Agreements to Prevent Inappropriate Disclosures

Nearly every state requires the APCD director or a data review committee to approve data release requests for data not available on a publicly accessible website.¹⁰³ After data release approval, all states require the parties to enter into a data use agreement to ensure adequate protections for sensitive financial information and proper use of the data.

Data Release Committees

Data release committees are tasked with reviewing requests for APCD data that are not publicly available. Typically, statutes or regulations determine representation on the data release committee, and committee members are appointed by state officials. In Colorado, for example, the data release review committee must include a “representative of a physician organization, hospital organization, non-physician provider organization and a payer organization on the data release review committee.”¹⁰⁴ Similarly, the executive director of the Massachusetts APCD names the data release committee but must include, at a minimum, “representatives from health care plans, health care providers, health care provider organizations and consumers.” In New Hampshire, the APCD commissioner may also determine members of the committee but must include one representative from each of the following stakeholder categories: insurance carriers, health care facilities, health care practitioners, the general public, purchasers of health insurance, and health care researchers.¹⁰⁵

In California, although industry membership on the data release committee will be important, data releases should benefit all stakeholders, including patients, employers, government entities, and the public. Therefore, at least half of the committee’s voting membership should be nonsubmitting entities. Determining appropriate data release practices will require input from a range of experts who understand health care markets, trade secret and privacy protocols, and consumer behavior and interests, in addition to industry experts.

Data Use Agreements

Data use agreements (DUAs) serve to protect financial information and ensure proper use of data and are employed by all state APCDs (see Table 3). All existing state DUAs prohibit disclosure of data without the express permission of the APCD. Additionally, nearly all DUAs prohibit entities from reverse engineering APCD data to identify patients and from using the data in ways other than the proposed usage. DUAs in Washington, Vermont, and Utah further prevent the data user from reverse engineering provider reimbursements or specific contract terms. To prevent disclosure of identifying information, most DUAs explicitly require requesting entities to have a cell suppression policy.¹⁰⁶

Importantly, all DUAs require a data management plan or some form of administrative, physical, or technical safeguards to protect the data from unintended or unauthorized use or disclosure, although those technical standards vary substantially.¹⁰⁷ For example, several APCDs prohibit use of unsecured telecommunication or internet services. New Hampshire requires appropriate password complexity to protect data sets. Maine and Florida set minimum standards for encryption in their DUAs.¹⁰⁸ Maine’s DUA also specifies that the APCD data will “not be accessed, tested, maintained, backed-up, transmitted, or stored outside of the United States.” In addition, DUAs typically require certification of data destruction after project completion.

Finally, most states include indemnification clauses and penalties to protect the state against misuse of the APCD data. DUAs often include an indemnification clause to hold state APCDs harmless from the actions of data users. In particular, Colorado and Washington include an indemnification clause for antitrust liability. These states’ DUAs explicitly hold the state APCD harmless if the data are used for any anticompetitive conduct, such as price-fixing. States have also designated penalties for violation of their DUAs. Some states simply use boilerplate language to subject data users to civil or criminal charges, penalties, and fines under applicable state and federal law.

Alternatively, Washington, New Hampshire, and Rhode Island have the power to immediately recall the data following a DUA violation. In Massachusetts and Delaware, a violation prohibits the data user from making future requests for data from the APCD. In addition, Maine may seek a court injunction to force compliance with the DUA and to prohibit use of the data by any researcher at the same institution for up to five years. Furthermore, most DUAs require, at a minimum, prior notice or approval before the publication of any findings. Utah and Maine, for example, require prior notification of publication in any academic journal 30 days or 20 days, respectively, before submission.

California should follow the example of other states and ensure proper use of the data by means of a DUA. California’s DUA should ensure adequate protections for the data, including mandated data destruction, data management plans, and penalties for misuse

of the data and inadvertent data releases. Data misuse, including use for anticompetitive purposes, should result in civil or potentially criminal charges, penalties, fines, and a ban from making future APCD data requests for five to 10 years, depending on the circumstances. California should also include an indemnification clause to protect the state from any recriminations from the misuse, misappropriation, or inappropriate release of the data. Finally, California should require data users to submit notification of any publication resulting from the data and require approval by the data release committee if the publication contains nonanonymized or unaggregated data.

In summary, states are relatively uniform in the type of data they collect and in making at least some of the data publicly available. States vary substantially, however, in what data are publicly accessible and what entities can access data through a data request.

Table 3. Common Elements in Data Use Agreements Among Active APCDs

	CO	DE	FL	ME	MA	NH	RI	UT	VT	WA
APCD retains ownership		✓	✓	✓	✓		✓	✓	✓	✓
Certificate of data destruction	✓	✓		✓	✓	✓	✓	✓	✓	✓
Data management plan / Requirement of safeguards	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Data only to be used as described in application	✓	✓	✓	✓	✓	✓		✓	✓	✓
Indemnification	✓	✓	✓	✓	✓	✓	✓	✓		✓
Prohibition of disclosure (of reports or data) without prior notice	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prohibition on identification of patients (including reverse engineering)	✓	✓	✓	✓	✓	✓	✓		✓	✓

Notes: The following states are excluded from this table for the reasons stated: Minnesota does not have a DUA. Arkansas, Oregon, Maryland, and Connecticut do not have DUAs available online. New York and Hawaii are still implementing their APCDs and do not have DUAs set up.

IV. Recommendations

This part of the report offers specific recommendations for policymakers to help them navigate trade secret protections and antitrust concerns regarding the disclosure of negotiated rates between providers and payers and other sensitive information. More generalized recommendations regarding the contours of a data release committee, data use agreements (DUAs), and guidelines for data release are offered in Part II of this report.

- 1. OSHPD should provide all data submitters with clear information and policies regarding data release prior to data collection.** Data collected from other state agencies may be subject to confidentiality agreements and require amendments to the Knox-Keene Act and California Public Records Act.
- 2. OSHPD should create a data release committee and declare that all information submitted to the APCD will be released in accordance with data release guidelines at the discretion of the data release committee.** To avoid any claim of trade secret misappropriation, OSHPD should inform data submitters that decisions regarding confidentiality and data release will be made by the data release committee to avoid the expectation that labeling data as confidential will prevent disclosure of that data.
- 3. The data release committee should establish guidelines for data release that weigh competitive effects and public interest.** Specifically, the committee should release data only when the pro-competitive effect of the data release or the public interest outweighs the anticompetitive effect.
- 4. The data release committee should implement a tiered data release policy, which would base oversight and access to data on the data requested and the nature of the requester.** The committee should review requests for data containing negotiated payment amounts on the basis of the nature of the entity making the request, the justification for

the request, the proposed usage of the data, the nature of the information requested, the requesting entity's technical and physical safeguards for maintaining the security of the data files, and whether the entity has misused data or violated prior data use agreements. For example, a tiered data release policy could include these provisions:

- ▶ **Tier 1: Data release to the public.** OSHPD releases price reports and other consumer- or policy-relevant findings on a publicly available website. Some aggregated and/or anonymized data should also be available to the public.¹⁰⁹
- ▶ **Tier 2: Data release to academic or governmental entities.** The committee should presume data requests from academic or governmental agencies to be procompetitive. These requests should be limited to the minimum data sets necessary to conduct the proposed research and subject to a data use agreement (DUA) that would allow only anonymized or aggregated data to be included in published study results without committee approval.
- ▶ **Tier 3: Data release to private entities or industry participants.** Industry participants and other private entities may request additional data from the APCD. The committee should consider comments from other industry participants and competitors before releasing data. Released data should be the minimum amount needed based on the reason for the request, and the requester should be required to demonstrate why the aggregated and anonymized data are insufficient for the requester's intended use.

To streamline data review, the committee could consider allowing the committee chair to review Tier 2 requests or Tier 3 requests that do not include negotiated rates. The committee chair could then approve these requests or pass them on to the committee for further review.

- 5. The data release committee should establish a data use agreement that provides requirements for accessing data.** The DUA should require that the data be used only for the approved use, that the recipient keep all nonpublic data confidential unless nonconfidentiality is approved by the committee, and that the recipient of the data implement appropriate privacy and encryption protections. The DUA should establish civil monetary penalties for using the data in illegal ways, including misappropriation, intentional and unauthorized data release, and price-fixing or collusion, and should exclude offending individuals, institutions, and companies from accessing APCD data for up to 10 years or more. The DUA should include procedural guidance for inadvertent data release and require data recipients to indemnify the state of California and OSHPD for any misuse or misappropriation of released APCD data.

- 6. OSHPD or its designee should monitor annual claims data for anticompetitive behavior.** OSHPD should look for evidence of tacit collusion or price shadowing, especially in highly concentrated markets, and should remove data from public display if anticompetitive effects are found.

Endnotes

1. Zach Y. Brown, "Equilibrium Effects of Health Care Price Information," *Review of Economics and Statistics* (forthcoming), published ahead of print, doi:10.1162/rest_a_00765.
2. The research presented in this report demonstrates that the committee would have the authority to release provider- and plan-specific prices on a public website; still, the committee should consider competitive effects when deciding to release negotiated rate data on the public website, especially in highly concentrated markets.
3. Cal. Health and Safety Code §§ 127671(a), (c).
4. Brown, "Equilibrium."
5. Deepa Varadarajan, "Trade Secret Fair Use," *Fordham Law Review* 83, no. 3 (2014), ir.lawnet.fordham.edu.
6. See Annemarie Bridy, "Trade Secret Prices and High-Tech Devices: How Medical Device Manufacturers Are Seeking to Sustain Profits by Propertizing Prices," *Texas Intellectual Property Law Journal* 17 (2009): 188, ssrn.com.
7. See *Peabody v. Norfolk*, 98 Mass. 452, 458 (1868) (acknowledging that a trade secret is property even without a patent).
8. "Trade Secrets Act," Uniform Law Commission, www.uniformlaws.org.
9. Uniform Trade Secrets Act § 1(4)(i-ii) (Unif. Law Comm'n 1985).
10. For a 50-state comparison, see Russell Beck, *Trade Secrets Acts Compared to the UTSA*, Beck, Reed, and Ridden, August 8, 2018, www.faircompetitionlaw.com (PDF).
11. Beck, *Trade Secrets Act*.
12. Uniform Trade Secrets Act § 1(1) (Unif. Law Comm'n 1985).
13. Uniform Trade Secrets Act § 1(2)(i-ii).
14. Cal. Civ. Code § 3426.1(d).
15. *Snelling Servs., LLC v. Diamond Staffing Servs., Inc.*, No. A135049, 2013 WL 3947175, at *10 (Cal. Ct. App. July 30, 2013) (holding that customer lists can be protected as trade secrets even if it is possible to re-create them); and *Bancroft-Whitney Co. v. Glen*, 64 Cal. 2d 327, 352 (1966) (stating "[i]t requires little talent to distinguish between a situation in which an individual voluntarily discloses his own salary to another and one in which the unpublished salary list of a group of prospective employees is revealed to a competitor for the purpose of facilitating the recruitment of the corporation's personnel").
16. Cal. Civ. Code § 3246.1(a).
17. Defend Trade Secrets Act of 2016, Pub. L. No. 114-153, 130 Stat. 376 (to be codified at 18 U.S.C. § 1836, et seq.).
18. 18 U.S.C.A. § 1839(3).
19. 18 U.S.C.A. § 1833(b) provides protection for "whistleblowers." As long as the disclosures are filed under seal, this section protects individuals who disclose trade secrets to government officials, the individuals' attorneys, or both as part of a complaint or lawsuit alleging violation of a law or defensively when an employer claims that the individual has disclosed a trade secret. This section has been called a "public-interest exemption" to trade secret law, but this exemption is distinct from the public-interest exemptions discussed in this report.
20. Cal. Civ. Code § 3426 (2019).
21. Trade secret cases can be heard in "the state of the plaintiff's place of business or incorporation; the state of an individual defendant's domicile; the state of a defendant corporation's place of incorporation or principal place of business; any state where the defendant's 'affiliations with the State are so "continuous and systematic" as to render them essentially at home in the forum state;' the state where the alleged misappropriation occurred (location where the conduct causing the injury occurred); the state where the trade secrets were allegedly transported to (place where the injury occurred); or the state where harm was felt, if the defendant directed activity toward that forum." See Brittany S. Bruns, "Criticism of the Defend Trade Secrets Act of 2016: Failure to Preempt," *Berkeley Technology Law Journal* 32, no. 9 (2018): 469, scholarship.law.berkeley.edu.
22. *Children's Hosp. Cent. California v. Blue Cross of California*, 226 Cal. App. 4th 1260, 1277 (2014).
23. *Children's Hosp. Cent. California*, 226 Cal. App. 4th.
24. *Com., Dept. of Pub. Welfare v. Eiseman*, 633 Pa. 366, 387 (2015) (citing 12 Pa. Cons. Stat. § 5302).
25. *Com., Dept. of Pub. Welfare*, 633 Pa. 366, 387.
26. *Wilmington Star-News, Inc. v. New Hanover Regional Medical Center, Inc.*, 125 N.C. App. 174 (1997).
27. *Wilmington Star-News, Inc.*, 125 N.C. App. at 180.
28. These factors include (1) the extent to which the information is known outside of the business; (2) the extent to which it is known by employees and others involved in the business; (3) the extent of measures taken to guard the secrecy of the information; (4) the value of the information to the business and to its competitors; (5) the amount of effort or money expended to develop the information; and (6) the ease or difficulty with which the information could be properly acquired or duplicated by others. Restatement (Second) of Torts § 757 (Am. Law Inst. 1979).
29. *Wilmington Star-News, Inc.*, 125 N.C. App. at 182.
30. See *Wilmington Star-News, Inc.*, 125 N.C. App. at 182 (referring to N.C. Gen. Stat. Ann. § 66-152 (2,3) 132-1.2 and arguing on the grounds that the information did not belong to a "private person," and records of public hospitals are subject to the state Public Records Act).

31. Unif. Trade Secrets Act § 1(2)(ii) (Unif. Law Comm'n 1985).
32. Emergency Care Research Inst. v. Guidant Corp., No. CIV.A. 06-1898, 2007 WL 2702455 (E.D. Pa. Sept. 12, 2007).
33. Emergency Care Research Inst. at 4 (stating that a "genuine issue of material fact also exists as to how many of Guidant's contracts contain confidentiality agreements" and denying a motion for summary judgment).
34. See e.g., *Convolve, Inc. v. Compaq Computer Corp.*, 527 F. App'x 910, 925 (Fed. Cir. 2013); *Rogers v. Desa Int'l, Inc.*, 183 F. Supp. 2d 955, 957 (E.D. Mich. 2002); and *Flotec, Inc. v. S. Research, Inc.*, 16 F. Supp. 2d 992 (S.D. Ind. 1998).
35. Cal. Health & Safety Code § 1385.07.
36. Cal. Gov't Code § 6254(q)(2–3).
37. *Lyft, Inc. v. City of Seattle*, 190 Wash. 2d 769, 780 (2018).
38. Some states, including Iowa, Nebraska, and Florida, have public interest exemptions that balance the potential benefit and harm to the public of trade secret disclosure under the state public records acts. Specifically, Nebraska's Public Records Act allows trade secrets and other confidential information to be withheld from public records disclosure only if the release of that information "would give advantage to business competitors and serve no public purpose." Neb. Rev. Stat. Ann. § 84-712.05.
39. Cal. Gov't Code § 6255.
40. *O'Grady v. Superior Court*, 139 Cal. App. 4th 1423 (Cal. Ct. App. 2006).
41. *O'Grady* at 1475–76.
42. See D. Andrew Austin and Jane G. Gravelle, Cong. Research Serv., RL34101, *Does Price Transparency Improve Market Efficiency? Implications of Empirical Evidence in Other Markets for the Health Sector*, 2007; Jihui Chen, "Differences in Average Prices on the Internet: Evidence from the Online Market for Air Travel," *Economic Inquiry* 44, no. 4 (Oct. 2006): 656, doi:10.1093/ei/cbj040; Deborah Haas-Wilson, "The Effect of Commercial Practice Restrictions: The Case of Optometry," *Journal of Law & Economics* 29, no. 1 (Apr. 1986): 165, doi:10.1086/467114; Ho Geun Lee, "Do Electronic Marketplaces Lower the Price of Goods?," *Communications of the ACM* 41, no. 1 (Jan. 1998): 73, doi:10.1145/268092.268122; Alex R. Maurizi, "The Effect of Laws Against Price Advertising: The Case of Retail Gasoline," *Economic Inquiry* 10, no. 3 (Sept. 1972): 321, doi:10.1111/j.1465-7295.1972.tb01607.x; Jeffrey Milyo and Joel Waldfogel, "The Effect of Price Advertising on Prices: Evidence in the Wake of 44 Liquormart," *Amer. Economic Review* 89, no. 5 (Dec. 1999): 1081, doi:10.1257/aer.89.5.1081; Florian Zettelmeyer, Fiona Scott Morton, and Jorge Silva-Risso, "Cowboys or Cowards: Why Are Internet Car Prices Lower?" (Working Paper No. 8667, Nat'l Bureau of Economic Research, 2001), doi:10.3386/w8667; and Florian Zettelmeyer, Fiona Scott Morton, and Jorge Silva-Risso, "How the Internet Lowers Prices: Evidence from Matched Survey and Automobile Transaction Data," *Journal of Marketing Research* 43, no. 2 (May 1, 2006): 168, doi:10.1509/jmkr.43.2.168.
43. See Brent D. Fulton, "Health Care Market Concentration Trends in the United States: Evidence and Policy Responses," *Health Affairs* 36, no. 9 (2017): 1531, doi:10.1377/hlthaff.2017.0556.
44. See Anna D. Sinaiko and Meredith B. Rosenthal, "Increased Price Transparency in Health Care — Challenges and Potential Effects," *New England Journal of Medicine* 364 (Mar. 10, 2011): 892, doi:10.1056/NEJMp1100041.
45. Specifically, the lower-cost provider has a financial incentive to remain cheaper than the dominant provider, to ensure that insurers will want to drive patients to the lower-cost provider's facility, but this provider has little incentive to offer significant discounts over its higher-cost peer.
46. David Cutler and Leemore Dafny, "Designing Transparency Systems for Medical Care Prices," *New England Journal of Medicine* 364 (Mar. 10, 2011): 894, doi:10.1056/NEJMp1100540.
47. Cutler and Dafny, "Designing," 894.
48. Sinaiko and Rosenthal, "Increased Price Transparency," 893.
49. Svend Albæk, Peter Møllgaard, and Per B. Overgaard, "Government-Assisted Oligopoly Coordination? A Concrete Case," *Journal of Industrial Economics* 45, no. 4 (1997): 429, econpapers.repec.org.
50. David P. Byrne and Nicolas de Roos, "Learning to Coordinate: A Study in Retail Gasoline," *Amer. Economic Review* 109, no. 2 (Feb. 2019): 591, doi:10.1257/aer.20170116.
51. Byrne and de Roos, "Learning," 591.
52. Deanna White, *Payments, Antitrust, Secrecy, and Transparency*, Maine Health Data Organization, June 2016, 3.
53. See also Marina Lao (director, Office of Policy Planning, Fed. Trade Commission) et al. to Minnesota Representatives Joe Hoppe and Melissa Hortman, June 29, 2015 (hereinafter "FTC Minnesota Letter"), www.ftc.gov (PDF) (citing other examples such as railroad grain, automaker marketing, long distance telephone, and inland water transportation).
54. US Dept. of Justice (DOJ) and Federal Trade Commission (FTC), *Statements of Antitrust Enforcement Policy in Health Care*, August 1996, 49–52.
55. DOJ and FTC, *Statements*, 49.
56. DOJ and FTC.
57. DOJ and FTC.
58. DOJ and FTC, 50.
59. DOJ and FTC, 50–51.
60. DOJ and FTC, 51.

61. DOJ and FTC (emphasis added).
62. DOJ and FTC.
63. Minn. Stat. § 13.387.
64. FTC Minnesota Letter, *supra* note 53.
65. Christine A. Varney (Asst. Attorney General, Antitrust Div., US Dept. of Justice) to Mit Spears, Esq., Ropes & Gray LLP, April 26, 2010, www.justice.gov.
66. *Antitrust Legality of Reports and Analytic Data Sets Generated Based on All Payer Claims Data*, Center for Improving Value in Health Care, 2014, www.apcdcouncil.org (PDF).
67. *Antitrust Legality*, 2.
68. *Antitrust Legality*.
69. *Antitrust Legality*, 3.
70. Under the state-action immunity doctrine of *Parker v. Brown*, state authorities are immune from federal antitrust lawsuits for actions pursuant to a clearly expressed state policy, even when anticompetitive effects were foreseeable. This immunity can extend to state-sanctioned behavior by private entities if (1) the state clearly articulates a state policy to displace competition and (2) the state actively supervises the anticompetitive conduct.
71. Ha T. Tu and Johanna R. Lauer, *Impact of Health Care Price Transparency on Price Variation: The New Hampshire Experience*, Issue Brief 128, Center for Studying Health System Change, November 2009, www.apcdcouncil.org.
72. Tu and Lauer, *Impact*.
73. See Ha T. Tu and Rebecca Gourevitch, *Moving Markets: Lessons from New Hampshire's Health Care Price Transparency Experiment*, California Health Care Foundation, 2014, www.chcf.org; and Brown, "Equilibrium," *supra* note 4.
74. Brown, *supra* note 4.
75. Brown, 25.
76. Brown.
77. Brown, 26.
78. See Tu and Gourevitch, *Moving Markets*; Tu and Lauer, *Impact*.
79. See Tu and Gourevitch.
80. Tu and Gourevitch, 4.
81. Tu and Gourevitch, 5.
82. Tu and Gourevitch, 8.
83. Karynlee Harrington (executive director, Maine Health Data Organization) to Katarina M. Horyn (associate general counsel, UnitedHealthcare Insurance Co.), December 27, 2018, mhd.o.maine.gov (PDF) (responding to letter dated Nov. 12, 2018, regarding Harvard Pilgrim Health Care's MHDO data Request Number 2018082201).
84. Harrington to Horyn.
85. Not all state APCDs are of equal quality. Among the states that have implemented APCDs, only Colorado, Maine, and New Hampshire received a grade higher than F on the Catalyst for Payment Reform's Annual Report Card on State Price Transparency Laws for the most recent three years available (2014–2017). This report card rewards states with APCDs that collect meaningful price information, so these three states should serve as possible models for California to emulate.
86. These 18 states are Arkansas, Colorado, Connecticut, Delaware, Florida, Hawaii, Kansas, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New York, Oregon, Rhode Island, Utah, Vermont, and Washington. The survey includes incomplete information from Kansas, which has out-of-date information, as well as from Hawaii, Delaware, Florida, and New York, which are still implementing their mandatory APCDs. In addition, the survey excludes information from APCDs in Tennessee, West Virginia, and Virginia, which either rely on voluntary submission (Virginia) or have stopped accepting data (Tennessee, West Virginia).
87. *Achieving States' Goals for All-Payer Claims Databases*, Anthem Public Policy Institute (June 2018), www.antheminc.com (PDF); and "Common Data Layout," APCD Council, www.apcdcouncil.org.
88. This comparison was done by reviewing each APCD's data submission manual and the data dictionary that contained all elements available for receipt. This review could not be made for Kansas (out-of-date information). This review could not be made for Florida, Hawaii, or New York because of the lack of a data dictionary or a data submission manual.
89. Maine recently began decoupling data from insurer. Instead of identifying each insurer, the APCD identifies only the insurer type (e.g., commercial payer). This transition is ongoing and is not fully reflected on Maine's consumer-facing price transparency website.
90. See *supra* notes 61–62 and accompanying text.
91. See *supra* notes 52–59 and accompanying text.
92. See CIVHC, *supra* note 63 ("Those reports or analytic data sets that do not satisfy the third condition would generally be lawful and are highly unlikely to be challenged by the Agencies because they will have little or no anticompetitive effect and may have substantial procompetitive benefits. . . . Many of these reports have the additional benefit of furthering public policy goals of greater price transparency and may, in turn, help to lower costs and actually be viewed as procompetitive under the antitrust laws"); Harrington, *supra* note 80 and accompanying text (affirming that release of MHDO claims data did not result in anticompetitive behavior).

93. See Del. Admin. Code 1-104(3.5.4). Here, Delaware defines pricing information to mean “any information referring to prices charged or paid, and includes the pre-adjudicated price charged by a Provider to a Reporting Entity for Health Care Services, the amount paid by a Member or insured party, including copays and deductibles, and the post-adjudicated price paid by a Reporting Entity to a Provider for Health Care Services.”
94. N.H. Code Admin. R. He-W 950.05(a).
95. 10 Colo. Code Regs. § 2505-5:1.200.5.A.
96. See Wash. Rev. Code § 43.371.050; and “Who Is Eligible to Request WA-APCD Data?,” Washington HealthCareCompare, accessed May 9, 2019, www.wahealthcarecompare.com.
97. Wash. Rev. Code § 43.371.050(4)(a); and Wash. Admin. Code § 82-75-510. Here, “proprietary financial information” is defined as “claims data or reports that disclose or would allow the determination of specific terms of contracts, discounts, or fixed reimbursement arrangements or other specific reimbursement arrangements between an individual health care facility or health care provider, as those terms are defined in RCW 48.43.005, and a specific payer, or internal fee schedule or other internal pricing mechanism of integrated delivery systems owned by a carrier.” Wash. Rev. Code § 43.371.010(12).
98. Fla. Stat. § 408.061; Fla. Stat. Ann. § 364.183.
99. Or. Rev. Stat. § 442.466(8)(d).
100. *Oregon All Payer All Claims Database (APAC), Data User Guide — 2011–2016 Dates of Service, Release APAC 2018.2*, Oregon Health Authority, November 27, 2018, www.oregon.gov (PDF).
101. *Oregon Data User Guide*, 53.
102. Del. Admin. Code 1-103(5.1).
103. Because Minnesota does not permit use of data by third parties unaffiliated with the Minnesota Department of Health, Minnesota does not have a governance structure for data release or a data use agreement.
104. 10 Colo. Code Regs. § 2505-5:1.200.5.B.
105. N.H. Code Admin. R. He-W 950.06(c).
106. A typical cell suppression policy prohibits the data recipient from publishing any findings derived from output from cell sizes (e.g., admittances, discharges, patients, services) of 11 or fewer. This requirement ensures cells with fewer than 11 observations cannot be identified by manipulating data in the report.
107. For a review of these data security standards, see Andrew Kelley and Jaime S. King, *All-Payer Claims Databases: The Balance Between Big Healthcare Data Utility and Individual Health Privacy*, The Source on Healthcare Price and Competition, October 2017, www.sourceonhealthcare.org (PDF).
108. Entities using the data in Maine must implement block-level encryption with the strength of “a certified algorithm which is 256 bit or higher.” Florida requires encryption to be “consistent with Federal Information Processing Standards (FIPS), and/or the National Institute of Standards and Technology (NIST) publications regarding cryptographic standards.”
109. The research presented in this report demonstrates that the committee would have the authority to release provider- and plan-specific prices on a public website; still, the committee should consider competitive effects when deciding to release negotiated rate data on the public website, especially in highly concentrated markets.

Explaining Texas v. U.S.: A Guide to the 5th Circuit Appeal in the Case Challenging the ACA

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Published: Jul 03, 2019

Issue Brief

On July 9, 2019, the U.S. Court of Appeals for the 5th Circuit will hear oral argument in *Texas v. U.S.*, the next round of litigation challenging the Affordable Care Act (ACA). The appeals court is reviewing a federal trial court's decision that the ACA's minimum essential coverage provision (known as the individual mandate) is unconstitutional and, as a result, requires the entire ACA to be overturned. The individual mandate provides that most people must maintain a minimum level of health insurance coverage; those who do not do so must pay a financial penalty (known as the shared responsibility payment) to the IRS. The individual mandate was upheld as a constitutional exercise of Congress' taxing power by a five member majority of the U.S. Supreme Court in *NFIB v. Sebelius* (<https://www.kff.org/health-reform/issue-brief/a-guide-to-the-supreme-courts-affordable/>) in 2012.

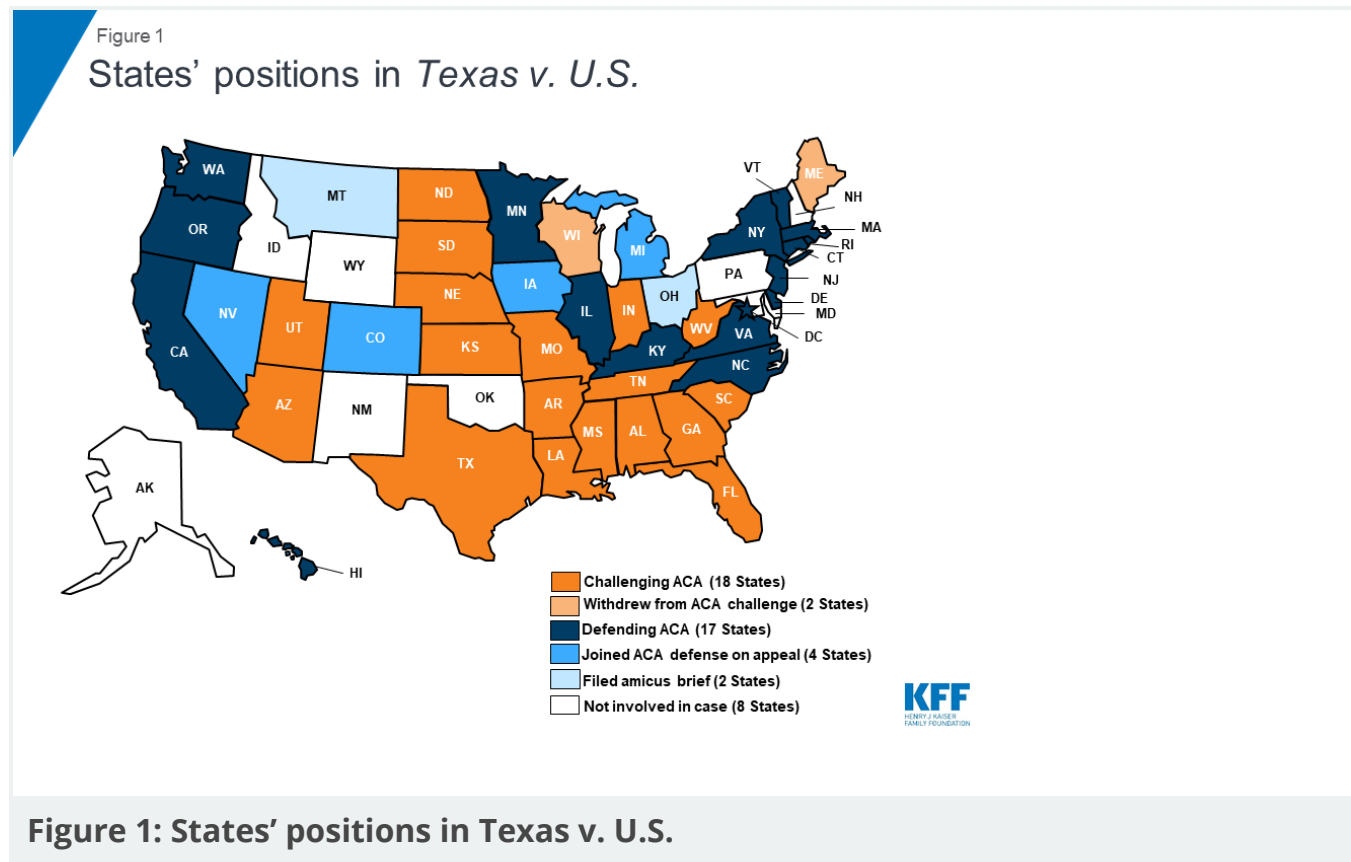
In the 2017 Tax Cuts and Jobs Act (TCJA), Congress set the shared responsibility payment at zero dollars as of January 1, 2019. According to the *Texas* trial court, this action "compels the conclusion" that the individual mandate ceases to be a constitutional exercise of Congress' taxing power because the associated financial penalty no longer "produces at least some revenue" for the federal government.¹ The trial court went on to find that, because Congress called the individual mandate "essential" when enacting the ACA in 2010, the entire law must be invalidated. The trial court's decision has not yet been implemented. However, if the decision does take effect, it will have complex and far-reaching consequences (<https://www.kff.org/health-reform/fact-sheet/potential-impact-of-texas-v-u-s-decision-on-key-provisions-of-the-affordable-care-act/>) for the nation's health care system, affecting nearly everyone in some way. A host of ACA provisions would be eliminated, including: protections for people with pre-existing conditions, subsidies to make individual health insurance more affordable, expanded eligibility for Medicaid, coverage of young adults up to age 26 under their parents' insurance policies, coverage of preventive care with no patient cost-sharing, closing of the doughnut hole under Medicare's drug benefit, and a series of tax increases to fund the new benefits.

This issue brief answers key questions about the case leading up to the oral argument on appeal.

Key Questions About the *Texas v. U.S.* Appeal

1. Who Is Challenging the ACA?

A group of 20 states, led by Texas, sued the federal government in February 2018, seeking to have the entire ACA declared unconstitutional (the “state plaintiffs”).² The states are represented by 18 Republican attorneys general and 2 Republican governors. After Democratic victories in the 2018 mid-term elections, two of these states, Wisconsin and Maine, withdrew from the case in early 2019, leaving 18 states challenging the ACA on appeal (Figure 1).



In addition, two individuals joined the lawsuit in the trial court in April 2018, as plaintiffs challenging the ACA’s constitutionality.³ The individual plaintiffs are self-employed residents of Texas who claim that the individual mandate requires them to purchase health insurance that they otherwise would not buy, although there is no penalty if they fail to buy coverage.

2. What Is the Federal Government’s Position in the Case, and How Has It Changed Over Time?

When the case was argued in the trial court, the federal government did not defend the constitutionality of the ACA’s individual mandate. Instead, the federal government agreed with the state and individual plaintiffs that the individual mandate is

no longer constitutional under Congress's taxing power as a result of the TCJA provision that set the financial penalty at zero.⁴ It is unusual for the federal government to take a position that does not seek to uphold a federal law.

However, unlike the plaintiffs, the federal government argued at the trial court level that only the ACA's protections for people with pre-existing conditions, including guaranteed issue and community rating, should be struck down along with the individual mandate. The federal government took the position that these provisions cannot function effectively without the individual mandate but that the rest of the ACA should be allowed to survive.

Then, instead of filing its opening brief as a party seeking to overturn the trial court's decision on appeal, the federal government instead informed the appeals court that it had changed its position. The federal government did not provide any reasoning to explain its March 2019 reversal. Instead, it stated that the "Department of Justice has determined that the district court's judgment should be affirmed" and the "United States is not urging that any portion of the district court's judgment be reversed."⁵ In other words, the federal government was supporting the position that the entire ACA should be overturned. However, in its appeals brief, the federal government appeared to modify somewhat its position by asserting that some provisions in the ACA should survive the legal challenge. For example, the federal government identified "several criminal statutes used to prosecute individuals who defraud our healthcare system" that are part of the ACA and that the individual plaintiffs likely do not have standing to challenge.⁶ The federal government asserted that appeals court should allow the trial court to determine the scope of which ACA provisions should survive.

3. Who is Defending the ACA?

Another 17 states, led by California, were permitted by the trial court to intervene in the case and defend the ACA (the "state intervener-defendants"). These states are represented by Democratic attorneys general. They moved to intervene in April 2018, and the trial court granted their motion in May 2018 (Figure 2). Subsequently, in February 2019, the 5th Circuit allowed four more states to intervene in the case on appeal, bringing the total number of states defending the ACA in the case to 21 (Figure 1).⁷

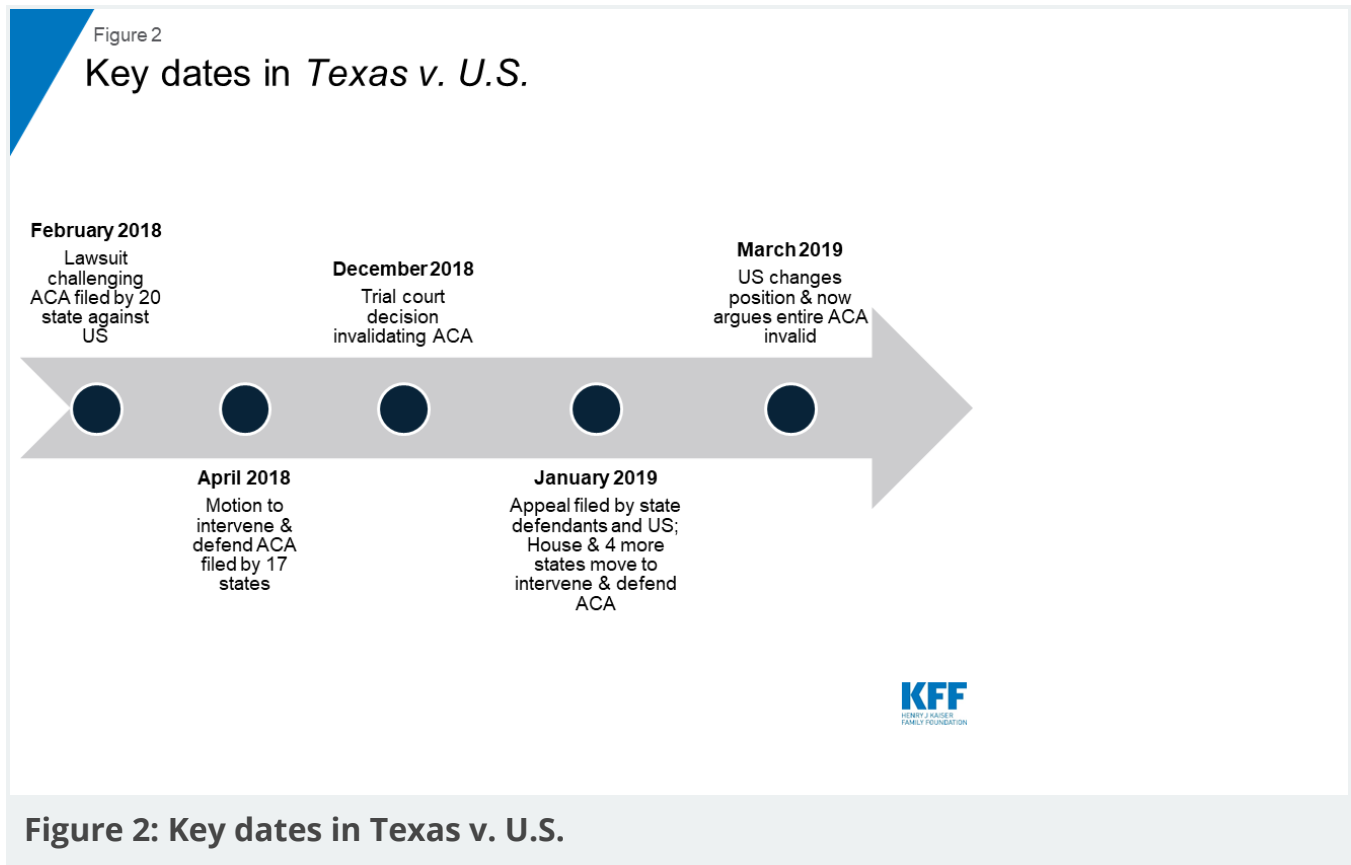
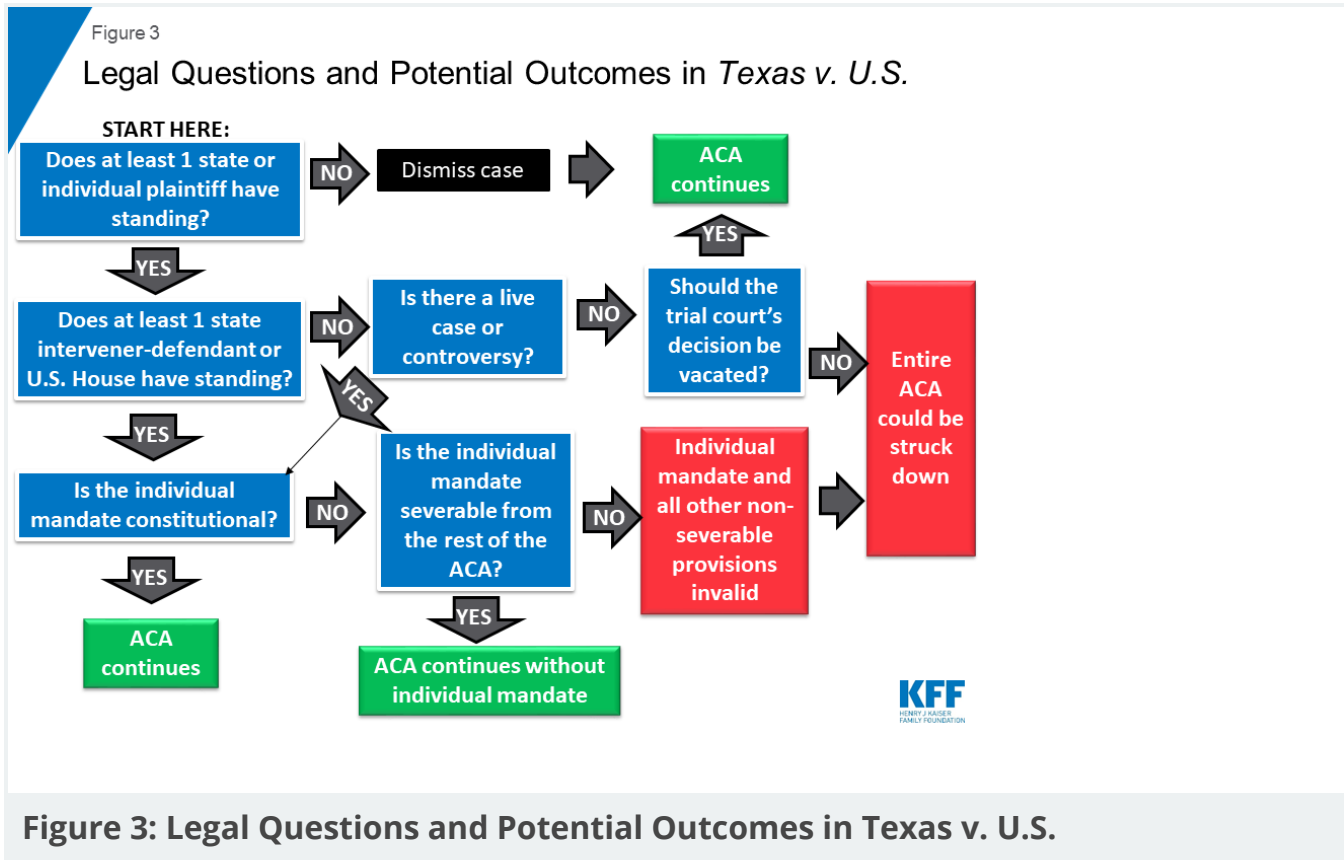


Figure 2: Key dates in Texas v. U.S.

The 5th Circuit also allowed the U.S. House of Representatives to intervene in the case to defend the ACA on appeal (Figure 2).⁸ However, as explained below, the court has asked for supplemental briefing which could indicate that the court may reconsider this decision.

4. What Issues Will the 5th Circuit Consider on Appeal?

The 5th Circuit is not bound by the trial court’s decision interpreting the law and will consider the case anew on appeal. There are three main issues that the court may consider: (A) whether the parties have standing to invoke the court’s jurisdiction on appeal; (B) whether the ACA’s individual mandate, as amended by the TCJA, is constitutional; and (C) if the mandate is unconstitutional, whether it can be severed from the rest of the ACA, or on the other hand, whether other provisions of the ACA also must be invalidated. Figure 3 illustrates the legal questions and potential outcomes in the case.



(A) DO THE PARTIES HAVE STANDING TO INVOKE THE COURT'S JURISDICTION?

(1) Standing of the Individual Plaintiffs and State Plaintiffs to Challenge the ACA

At the outset, the court likely will consider whether the parties have standing to litigate the case. Standing ensures that federal courts are deciding actual cases or controversies as required by the U.S. Constitution. Standing is essential for the court to have jurisdiction to decide a case and therefore cannot be waived. To establish standing, a party must suffer an injury that is concrete and actual or imminent; fairly traceable to the challenged conduct; and likely to be redressed by a favorable court ruling. The trial court found that the individual plaintiffs satisfied the criteria to establish standing but did not analyze standing for the state plaintiffs. It is necessary that only one plaintiff have standing for a case to proceed.

The individual plaintiffs argue that they have standing to challenge the individual mandate because, even after Congress set the financial penalty for not complying at zero, they nevertheless feel compelled to comply with the federal law requiring them to maintain minimum essential coverage.⁹ The state intervener-defendants and the House assert that these plaintiffs are not harmed by the individual mandate because the ACA, as amended by the TCJA, merely “offers them a choice between purchasing insurance or doing nothing.”¹⁰ The state plaintiffs claim that the ACA’s individual mandate causes them to experience increased Medicaid and CHIP costs, due to increased enrollment, and

increased administrative burden.¹¹ The state intervener-defendants and the U.S. House respond that the state plaintiffs fail the standing test because their claims are “purely speculative” and/or unrelated to the individual mandate.¹²

(2) Standing of the State Intervener-Defendants and US House to Pursue an Appeal

On June 26, 2019, the 5th Circuit ordered supplemental briefing from the parties on three questions related to the standing of the state intervener-defendants and the House to pursue an appeal.¹³ The standing of the state intervener-defendants and/or the US House is particularly important in this case, since the federal government is not defending the ACA (Figure 4). It is hard to know what motivated the 5th Circuit to ask for supplemental briefing on the intervener-defendants’ standing in light of the Supreme Court’s June 17, 2019 decision in *Va. House of Delegates v. Bethune-Hill*¹⁴ or why the court may be reconsidering its earlier decision to allow the U.S. House to intervene. The 5th Circuit may be exercising extra caution in fully considering the standing issue because the Supreme Court’s decision was issued after briefing in *Texas v. U.S.* closed and a further appeal to the Supreme Court is likely in this case. This case is also unusual in that no party is defending the constitutionality of a federal law without the intervener-defendants, and the stakes are high if the entire ACA is struck down. Additionally, the court asked the parties to address whether intervention, particularly by the House, was timely. When granting the House’s January 2019 motion to intervene, the 5th Circuit found that it was “not untimely in the context of this case.”¹⁵

Figure 4

Alignment of the Parties in *Texas v. U.S.*

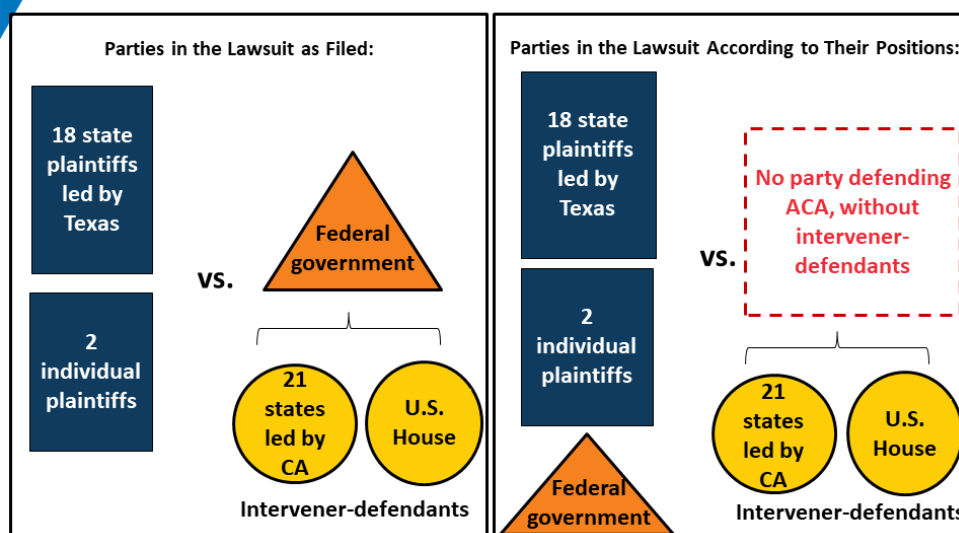


Figure 4: Alignment of the Parties in *Texas v. U.S.*

The court also asked whether a live case or controversy might still remain even if neither the state defendants nor the House has standing, given the federal government's position on appeal.¹⁶ If both the state defendants and the House are dismissed from the appeal, there will not be any party defending the individual mandate's constitutionality. The only area where the federal government is taking a different position from the state and individual plaintiffs is about whether some ACA provisions should survive if the mandate is unconstitutional. It remains to be seen whether the 5th Circuit would find that this constitutes a live case or controversy and allow the appeal to proceed, if the court reaches this point in the analysis.

Finally, the 5th Circuit asked how the case should be resolved if neither the state defendants nor the House has standing and the federal government's change in position has mooted the appeal.¹⁷ If the 5th Circuit decides that the *Texas v. U.S.* appeal is moot, it could vacate the trial court's judgment, allowing the ACA to survive, or allow the decision to stand, meaning the ACA would be struck down if the trial court goes on to issue injunctive relief to implement its decision.

(B) IS THE INDIVIDUAL MANDATE CONSTITUTIONAL AFTER THE TCJA SET THE FINANCIAL PENALTY AT ZERO?

Next, the court will consider whether the individual mandate as amended by the TCJA is constitutional. The state and individual plaintiffs and the federal government all argue that the requirement to produce some revenue was "essential" to the Supreme Court's finding that the individual mandate could be saved as a valid exercise of Congress's power to tax.¹⁸ Without that feature, they assert that the mandate is a command to purchase health insurance, which as the Supreme Court held in *NFIB*, is an unconstitutional exercise of Congress' power to regulate interstate commerce.

The state intervener-defendants argue that the Supreme Court's characterization of the individual mandate as "establishing a condition – not owning health insurance – that triggers a tax" still controls.¹⁹ In their view, the TCJA's reduction of the tax amount to zero did not make the individual mandate unconstitutional but rather created a scenario in which the ACA now "may encourage Americans to buy health insurance, but it imposes no legal obligation to do so."²⁰ The House asserts that the TCJA amendment "confirms beyond doubt" that the individual mandate "is not a legal command to buy insurance because it removes any consequence for failing to" do so.²¹

(C) IF THE INDIVIDUAL MANDATE IS UNCONSTITUTIONAL, IS IT SEVERABLE FROM THE REST OF THE ACA?

If the court finds that the individual mandate is unconstitutional, it will then decide whether it can be severed from the rest of the ACA. The state and individual plaintiffs argue that the individual mandate is not severable from the rest of the ACA. They point out that the federal government has consistently taken the position that the mandate is essential to the proper functioning of the guaranteed issue and community rating

provisions because it is needed to avoid adverse selection and throwing the individual market into a “death spiral.”²² They also argue that the mandate is inseverable from other “major provisions” of the ACA because the mandate was intended to offset the costs imposed by those provisions.²³ And, they claim that the mandate is inseverable from the ACA’s “minor provisions” because “[t]here is no reason to believe that Congress would have enacted them independently.”²⁴

The state defendants and the House argue that the individual mandate should be severed from the rest of the ACA if it is found unconstitutional. They point to the 2017 TCJA as “unambiguously establish[ing] that [Congress] intended the rest of the law to function in the absence of an enforceable mandate.”²⁵ As a result, they assert that in this case, “we know for certain that Congress would have preferred ‘what is left’ of the Affordable Care Act to ‘no [Act] at all.’”²⁶ When enacting the TCJA, Congress was aware of evidence from the Congressional Budget Office which projected that the guaranteed issue and community rating provisions could continue to function without an enforceable individual mandate. They also note that Congress rejected several attempts to repeal and replace the ACA in 2017.²⁷

5. Who Else Has Weighed in on the Appeal?

In the 5th Circuit appeal, 2 more states (Ohio and Montana) filed an amicus brief arguing that the ACA’s individual mandate is unconstitutional but should be severed from the ACA, allowing the rest of the law to stand (Figure 1). The state’s amicus brief is one among nearly 25 others filed by a range of entities, including law professors; health plans; advocacy groups that represent seniors, women, people with disabilities, and people with chronic illnesses; health care provider associations; economic scholars; tribal nations; local governments; and other groups.

Looking Ahead

Oral argument is scheduled for 1:00 pm on July 9th, with 45 minutes to be shared among the state intervener-defendants and the House, and 45 minutes to be shared among the state plaintiffs, individual plaintiffs, and federal government. The case will be heard by a panel of three judges, including Judge Carolyn Dineen King (appointed by President Carter), Judge Jennifer Walker Elrod (appointed by President George W. Bush), and Judge Kurt D. Engelhardt (appointed by President Trump). There is no deadline by which the court must issue a decision, but it could come as early as fall 2019.

If the court finds that the individual mandate is unconstitutional and invalidates only that provision, the practical result will be essentially the same as the ACA exists today, as amended by the TCJA, without an enforceable mandate. If the court adopts the position that the federal government took during the trial court proceedings and invalidates the individual mandate as well as the protections for people with pre-existing conditions, then federal funding for premium subsidies and the Medicaid expansion would stand, and it would be up to states whether to reinstate the insurance protections.

The most far-reaching consequences (<https://www.kff.org/health-reform/fact-sheet/potential-impact-of-texas-v-u-s-decision-on-key-provisions-of-the-affordable-care-act/>), affecting nearly every American in some way, will occur if the court decides that the entire ACA must be overturned. The number of non-elderly individuals who are uninsured decreased by 19.1 million (<https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/>) from 2010 to 2017, as the ACA went into effect. The ACA made significant changes to the individual insurance market, including requiring protections for people with pre-existing conditions, creating insurance marketplaces, and authorizing premium subsidies for people with low and modest incomes. The ACA also made other sweeping changes throughout the health care system including expanding Medicaid eligibility for low-income adults; requiring private insurance, Medicare, and Medicaid expansion coverage of preventive services with no cost sharing; phasing out the Medicare prescription drug “doughnut hole” coverage gap; reducing the growth of Medicare payments to health care providers and insurers; establishing new national initiatives to promote public health, care quality, and delivery system reforms; and authorizing a variety of tax increases to finance these changes. All of these provisions could be overturned if the trial court’s decision is upheld, and it would be enormously complex to disentangle them from the overall health care system.

Despite the trial court’s decision that the entire ACA should be invalidated, that decision has not yet been implemented, and the Trump Administration has indicated that it intends to continue enforcing the ACA while the appeal is pending. After the 5th Circuit issues its decision, one or more parties may ask the Supreme Court to review the case. Nearly 10 years after its enactment, the only certainty for the ACA in the foreseeable future is that there is once again uncertainty about its ultimate survival.

Endnotes

Issue Brief

1. *Texas v. U.S.*, No. 4:18-cf-00167-O, Memorandum Opin. and Order (N.D. Tex. Dec. 14, 2018), <https://affordablecareactlitigation.files.wordpress.com/2018/12/Texas-v.-US-partial-summary-judgment-decision.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2018/12/Texas-v.-US-partial-summary-judgment-decision.pdf>).

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2. *Texas v. U.S.*, No. 4:18-cv-00167-O, Compl. (N.D. Tex. Feb. 26, 2018), <https://affordablecareactlitigation.files.wordpress.com/2018/09/177111358274.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2018/09/177111358274.pdf>).

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3. *Texas v. U.S.*, No. 4:18-cv-00167-O, Amended Compl. (N.D. Tex. April 23,, 2018), <https://affordablecareactlitigation.files.wordpress.com/2018/09/texas-v-us-aca-amended-complaint.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2018/09/texas-v-us-aca-amended-complaint.pdf>).

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4. The federal government and the plaintiffs also endorsed the Supreme Court's determination in *NFIB* that the individual mandate also is not a constitutional exercise of Congress' power to regulate interstate commerce. The trial court adopted both of these conclusions in its decision.

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5. Letter from U.S. Dep't of Justice to U.S. Court of Appeals for the Fifth Circuit Clerk (March 25, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/03/doj-anti-aca-letter-3-25.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/doj-anti-aca-letter-3-25.pdf>).

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6. It stated that the "relief awarded to the plaintiffs should extend only to the ACA's provisions that actually injure them. *Texas v. U.S.*, no 19-1001, Brief for the Federal Defendants at 19 (5th Cir. May 1, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-us-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-us-brief.pdf>).

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7. *Texas v. U.S.*, no 19-1001, Order (5th Cir. Feb. 14, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-denying-motion-to-expedite-granting-oregon-motion-to-intervene.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-denying-motion-to-expedite-granting-oregon-motion-to-intervene.pdf>).

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8. *Texas v. U.S.*, no. 19-1001, Order (5th Cir. Feb. 14, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-granting-us-house-motion-to-intervene.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-granting-us-house-motion-to-intervene.pdf>). The House also sought to intervene in the trial court proceedings in January 2019, but the trial court stayed briefing on that motion while the 5th Circuit appeal is pending.

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9. One individual plaintiff asserts that his Marketplace plan is not accepted by all of his family's healthcare providers, his new providers are not of the same quality, and some new providers have limited appointment availability which delays his access to care. The other individual plaintiff alleges that his Marketplace plan is high cost, and he would prefer to purchase coverage with lower premiums. *Texas v. U.S.*, no. 19-1001, Br.

of Appellees Neill Hurley and John Nantz (5th Cir. May 1, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-individual-appellees-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-individual-appellees-brief.pdf>).

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10. *Texas v. U.S.*, no. 19-1001, State Defendants' Opening Br. at 26 (5th Cir. March 25, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-intervenor-defendants-opening-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-intervenor-defendants-opening-brief.pdf>).

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11. *Texas v. U.S.*, no. 19-1001, Br. for State Appellees (5th Cir. May 1, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-appellees-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-appellees-brief.pdf>).

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12. *Texas v. U.S.*, no. 19-1001, State Defendants' Opening Br. at 26 (5th Cir. March 25, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-intervenor-defendants-opening-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-intervenor-defendants-opening-brief.pdf>); *Texas v. U.S.*, no. 19-1001, Opening Br. of Intervener the U.S. House of Representatives at 3 (5th Cir. March 25, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf>).

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13. The trial court exercised its discretion to allow the states to intervene, finding that their April 2018 motion was filed timely, the states' defense shared a question of law with in common with the plaintiffs, and their participation would not unduly delay the case or prejudice the original parties. The trial court also held that these states did not qualify to intervene as a matter of right because the federal government had not yet taken a position in the case, and therefore, there was no evidence that these states' interest in defending the ACA would not be adequately represented. *Texas v. U.S.*, No. 4:18-cf-00167-O, Order (N.D. Tex. May 16, 2018), <https://affordablecareactlitigation.files.wordpress.com/2018/09/order-granting-intervention.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2018/09/order-granting-intervention.pdf>). The 5th Circuit allowed four more states to intervene as defendants on appeal in an order that does not provide any reasoning for the decision. *Texas v. U.S.*, no 19-1001, Order (5th Cir. Feb. 14, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-denying-motion-to-expedite-granting-oregon-motion-to-intervene.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-denying-motion-to-expedite-granting-oregon-motion-to-intervene.pdf>).

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14. In *Bethune-Hill*, the Supreme Court in a 5:4 decision held that the Virginia state house did not have standing to appeal a lower court decision that found the state's electoral redistricting plan unconstitutional. The Bethune-Hill court noted that "to appeal a decision that the primary party does not challenge, an intervener must independently demonstrate standing." No. 18-281, maj. slip opin. at 4 (June 17, 2019), https://affordablecareactlitigation.files.wordpress.com/2019/06/18-281_6j37.pdf (https://affordablecareactlitigation.files.wordpress.com/2019/06/18-281_6j37.pdf). The opinion speaks to the standing of a state legislative body under state law, rather than the U.S. House. The dissent notes in passing that "[i]f one House of Congress or one or more Members of Congress attempt to invoke the power of a federal court, the court must consider whether this attempt is consistent with the structure created by the Federal Constitution." *Id.*, dissent slip opin. at 7. The dissent quotes from the U.S. Solicitor General's amicus brief observing that "[i]n the federal system, the Constitution gives Congress only 'legislative Powers,' and the 'power to seek judicial relief. . . cannot possibly be regarded as merely in aid of the legislative function.'" *Id.* at 6.

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15. The 5th Circuit also found that the House's defense shared a question of law in common with the plaintiffs and its participation would not unduly delay the case or prejudice the original parties. The court noted that "[i]n the absence of any other federal government party in the case presenting a complete defense to the Congressional enactment at issue, this court may benefit from the participation by the House." *Texas v. U.S.*, no. 19-1001, Order (5th Cir. Feb. 14, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-granting-us-house-motion-to-intervene.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/02/5c-order-granting-us-house-motion-to-intervene.pdf>).

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16. The court cites the Supreme Court's decision in *U.S. v. Windsor*, which involved the Obama Administration's decision to no longer defend the constitutionality of the Defense of Marriage Act (DOMA), although it continued to enforce DOMA's prohibition against same-sex marriage. The majority found that this created a contested case by injuring the plaintiff and therefore did not consider whether the House Bipartisan Legal Advisory Group (BLAG) had standing to pursue an appeal to defend DOMA. In a dissent that was not joined by any other justices, Justice Alito conclude that the House BLAG had standing to appeal and observed that in the "narrow category of cases in which a court strikes down an Act of Congress and the Executive declines to defend the Act, Congress both has standing to defend the undefended statute and is a proper party to do so." 570 U.S. 744 (2013), <https://affordablecareactlitigation.files.wordpress.com/2019/06/united-states-v.-windsor.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/06/united-states-v.-windsor.pdf>).

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17. Under the Supreme Court's decision in *U.S. v. Munsingwear*, the "duty of the appellate court" is to "reverse or vacate the judgment below and remand with a direction to dismiss" if a federal civil case becomes moot when an appeal is pending. 340 U.S. 36 (1950), <https://affordablecareactlitigation.files.wordpress.com/2019/06/us-v-munsingwear.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/06/us-v-munsingwear.pdf>). Under the Supreme Court's decision in *U.S. Bancorp Mortgage Company. v. Bonner Mall Partnership*, however, if a case pending appeal becomes moot due to a settlement among the parties, the lower court's decision should not be vacated by the appeals court absent "extraordinary circumstances." 513 U.S. 18 (1994), <https://affordablecareactlitigation.files.wordpress.com/2019/06/us-bancorp.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/06/us-bancorp.pdf>).

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18. *Texas v. U.S.*, no. 19-1001, Br. for State Appellees at 34 (5th Cir. May 1, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-appellees-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-appellees-brief.pdf>). The federal government points out that prior to the TCJA, the shared responsibility payment for tax year 2019 and beyond would have been the greater of 2.5% of household income or \$695. *Texas v. U.S.*, no. 19-1001, Br. for the Fed. Defendants at 13 (5th Cir. May 1, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-us-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-us-brief.pdf>).

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19. *Texas v. U.S.*, no. 19-1001, State Defendants' Opening Br. at 27 (5th Cir. March 25, 2019) (quoting *NFIB*), <https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-intervenor-defendants-opening-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-intervenor-defendants-opening-brief.pdf>).

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20. *Id.* at 28.

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21. *Texas v. U.S.*, no. 19-1001, Opening Br. of Intervener the U.S. House of Representatives at 9 (5th Cir. March 25, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf>).

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22. *Texas v. U.S.*, no. 19-1001, Br. for State Appellees at 40 (5th Cir. May 1, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-appellees-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-appellees-brief.pdf>).

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23. *Id.* at 45-49.

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24. *Id.* at 50.

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25. *Texas v. U.S.*, no. 19-1001, Opening Br. of Intervener the U.S. House of Representatives at 11 (5th Cir. March 25, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf>).

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26. *Texas v. U.S.*, no. 19-1001, State Defendants' Reply Br. at 20 (5th Cir. May 22, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-intervenor-defendants-reply-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/05/5c-intervenor-defendants-reply-brief.pdf>).

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27. *Texas v. U.S.*, no. 19-1001, Opening Br. of Intervener the U.S. House of Representatives at 46-47 (5th Cir. March 25, 2019), <https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf> (<https://affordablecareactlitigation.files.wordpress.com/2019/03/5c-houses-opening-brief.pdf>).

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How the ACA's Medical Loss Ratio Rule Protects Consumers and Insurers Against Ongoing Uncertainty

July 2, 2019 | Mark A. Hall and Michael J. McCue



ABSTRACT

- **Issue:** The Affordable Care Act's rule on minimum medical loss ratios (MLRs) protects consumers by capping insurers' profits and overhead. In the early years of the law, these caps were rarely used because most insurers in the individual health insurance market experienced substantial losses. More recently, however, insurers are earning substantial profits while the individual market is rattled by regulatory uncertainty and change.
- **Goal:** To understand the ongoing role that the medical loss ratio rule plays in the individual health insurance market.
- **Methods:** Analysis of insurers' financial performance 2015–2017, as reported to the federal government.

- **Key Findings and Conclusion:** Consumer rebates under the MLR rule increased noticeably in 2017 as insurers raised rates and regained profitability. At the same time, the rule's calculation of MLRs based on a three-year rolling average allowed insurers in 2017 to recoup a portion of their losses from earlier years. As the individual market continues to experience cycles of profits and losses, the MLR rule dampens the severity of these cycles, thus protecting insurers as well as consumers.

Background

Regulation of insurers' medical loss ratios (MLRs, or loss ratios) is one of the most notable consumer protections in the Affordable Care Act (ACA). The loss ratio is the percentage of premium dollars that insurers spend on medical claims and quality improvement, rather than dollars retained for administrative overhead and profit.

Under the ACA, insurers that do not incur a loss ratio of at least 80 percent (based on a three-year rolling average) in the individual or small-group market must rebate the difference to consumers.¹ Put another way, insurers with average overhead and profits during the past three years that exceed 20 percent must rebate the excess to members. Large-group insurers must do the same for loss ratios less than 85 percent, or when overhead and profits average more than 15 percent of premium dollars based on a three-year average.²

The ACA's MLR rule took effect in 2011. In its first few years, this rule provided important consumer protection by requiring substantial consumer rebates and inducing insurers to reduce their administrative costs, which likely helped to keep premiums somewhat lower.³ These protections became less visible once insurers adjusted their rates to reflect their lower overhead.⁴ Following substantial rate increases for individual health insurance in 2017 and 2018, however, the ACA's loss ratio limits have renewed relevance by helping stabilize a market that has been buffeted by cyclical underpricing and overpricing.

This issue brief explains how the ACA's MLR rule serves an important buffering function in two ways. The rule protects consumers by limiting how much insurers can attempt to recoup previous losses through higher profits in any one year. At the same time, the rule allows insurers to replenish some of their reserves that deplete during lean times by calculating MLR limits based on a three-year rolling average.

The Changing Relevance of Loss Ratio Limits

As shown in Exhibit 1, rebates in the individual health insurance market declined from almost \$400 million in 2011 to slightly more than \$100 million annually in 2015 and 2016,⁵ accounting in those later years for only about 0.14 percent of insurers' premiums. Rebates also declined in the group markets but less dramatically (in proportionate terms).

Exhibit 1

Rebates by Market 2011 to 2017 (in \$ millions)

Data: Center for Consumer Information and Insurance Oversight, [Summary of 2016 Medical Loss Ratio Results](#) (CCIIO, Dec. 2017).

Source: Mark A. Hall and Michael J. McCue, [How the ACA's Medical Loss Ratio Rule Protects Consumers and Insurers Against Ongoing Uncertainty](#) (Com July 2019). <https://doi.org/10.26099/hciv-x297>

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To fully understand this pattern, it helps to have a clearer picture of insurance pricing during this period. The individual market had a significant drop in rebates after 2014 because loss ratios in that market increased to an unprofitable level for most insurers in 2015 and 2016. Insurers underpriced those years because of the highly competitive conditions in the newly reformed individual market, coupled with actuarial uncertainty over the full extent of health care needs for the newly insured.⁶

But since 2017, the ACA's MLR limits have once again become more relevant for consumers in the individual market.⁷ To help insurers regain profitability, state regulators allowed them to target the minimum allowable loss ratios, which meant that rates increased more than the anticipated increases in medical claims. As a result, rate increases averaged roughly 25 percent in 2017 and 30 percent in 2018.⁸

For the most part, these increases were caused by changes in federal rules, such as the planned phasing out of the ACA's transitional reinsurance program, as well as the unplanned cessation of cost-sharing reduction payments to insurers.⁹ But these hefty increases were also driven by insurers' aiming to substantially lower their previous loss ratios.

In fact, many insurers overshot their targeted loss ratios in 2017 and 2018, resulting in greater profitability than they may have anticipated. Accordingly, their rate increases were much more subdued in 2019, averaging only about 3 percent.¹⁰

This cyclical pattern of underpricing followed by overpricing (relative to actual medical claims) is driven in large part by insurers' uncertainty about the ACA's evolving market conditions. This uncertainty has two causes: actuarial and political.¹¹

When the newly reformed individual market first opened in 2014, insurers lacked the actuarial experience needed to accurately estimate the newly insured's use of medical services. This actuarial uncertainty carried over into 2016 because insurers must file their rates roughly 18 months prior to the end of the following rating year.¹² Also, in 2015 and 2016, there was substantial turnover among insurers in the individual market, as some initial players learned that they were not able to compete effectively under the new market rules.¹³

The ACA's drafters anticipated this uncertainty and included several risk-mitigating measures, known as the "three R's:" reinsurance, risk-adjustment, and risk corridors.¹⁴ The first two measures were implemented, but risk corridors were not because of Republican opposition that characterized this market-stabilizing measure as a "bailout for insurers."¹⁵ Risk corridors would have substantially dampened the initial cycling between substantial losses and excessive profits in the ACA's individual market.¹⁶

Despite the absence of the ACA's full complement of stabilizing features, participating insurers began to gain their actuarial footing in 2017. At this point, however, the cause of insurers' uncertainty shifted from typical actuarial factors to more political factors, including dramatic changes in administrative policies and market rules under the Trump administration. These changes are described in more detail elsewhere, but in brief they include abruptly ceasing cost-sharing reduction payments, repealing the individual mandate penalty, and drastically reducing funding for marketing and consumer navigation during open enrollment.¹⁷

This political and regulatory uncertainty continues. Regulators are greatly loosening rules that previously had limited the sale of non-ACA-compliant policies, and the full impact of these changes is still unknown.¹⁸ Moreover, the Justice Department has taken the position in court that the ACA should be struck down as unconstitutional, which could have a catastrophic impact on the individual market. However, the fate and timing of that litigation is highly uncertain.

In short, these roller-coaster conditions would probably have leveled out by 2017 if ongoing changes to market rules had not intensified the uncertainty. Against this backdrop, we now consider the role that the ACA's loss ratio rule might play in stabilizing the market by protecting both consumers and insurers through continuing cycles of losses and excessive profits that result from ongoing market uncertainty.

The following sections examine two key stabilizing features in the ACA's loss ratio rule. Using a three-year rolling average to calculate excess overhead and profits protects insurers by allowing them to recoup at least a portion of their recent losses through somewhat larger rate increases in a current year. At the same time, requiring insurers to rebate excess overhead and profits protects consumers from unjustified price increases.

In effect, the ACA's loss ratio rule serendipitously serves a function similar to the ACA's risk corridor provisions that were undermined by Republican opposition: the MLR rule partially shelters insurers in bad times and keeps them from unduly profiteering in good times.

Protection of Insurers

Viewing the individual market as a whole, Exhibit 2 shows that in 2015 and 2016 (averaged together), insurers had poor financial results. Their collective loss of -7.4 percent was because of a high medical loss ratio — 95 percent. Some insurers were more successful and were required to pay a rebate; however, across the entire market, these rebates averaged only \$6 per person per year (50 cents a month), equal to just 0.01 percent of the premium.

Exhibit 2**Financial Performance of the Individual Market, 2015 to 2017**

Data: Center for Consumer Information and Insurance Oversight, [Summary of 2016 Medical Loss Ratio Results](#) (CCIIO, Dec. 2017).

Source: Mark A. Hall and Michael J. McCue, [How the ACA's Medical Loss Ratio Rule Protects Consumers and Insurers Against Ongoing Uncertainty](#) (Commonwealth Fund, July 2019). <https://doi.org/10.26099/hciv-x297>

Insurers' financial performance improved dramatically in 2017. By increasing premiums by 11 percent more than the increase in claims (14% vs. 3%),¹⁹ insurers reduced their medical loss ratios by nine percentage points overall, from 95 percent to 86 percent. And, by holding steady their administrative costs, their profit margins improved by 11 points, from -7.4 percent to 3.3 percent.

Because of this financial improvement, rebates increased by almost 50 percent in 2017. But rebates still remained much lower than in the ACA's early years, averaging only \$9 a person for 2017 (\$0.73 a month) marketwide.

Rebates remained low for two reasons. First, although insurers' MLRs dropped quite a bit, they remained above the regulatory minimum on average. Second, for insurers with 2017 loss ratios below 80 percent, their earlier losses in 2015–2016 decreased the rebate amount they owed because the rebate is calculated using a three-year rolling average.

This effect can be seen by examining insurers that were in the individual market all three years, 2015–2017. Out of 303 such insurers with at least 1,000 members, there were 74 insurers with loss ratios below the required 80 percent in 2017. Without the three-year rolling average, these more profitable insurers would have owed rebates averaging \$258 per member in 2017. Instead,

the ACA's three-year look-back rule required insurers that were in the market that long to pay a rebate of only \$21.55 per member for the year. This reduction allowed these insurers to recoup \$919 million of prior 2015–2016 losses overall.

Protection of Consumers

At the same time the ACA's MLR rule helps cushion the extent of insurers' losses over time, it also continues to protect consumers against overpriced health plans. Although most insurers in 2017 owed no rebates, 29 insurers paid a rebate of \$140 per member, amounting to \$132 million, or 3.3 percent of their premiums. Not counting these rebates, these insurers had a handsome overall profit margin of 12.6 percent in 2017. As shown in Exhibit 3, these rebates reduced their profit margins by slightly more than 25 percent.

Exhibit 3

Rebate Insurers: Total Profit and Profit Net of Rebate in 2017 (millions)

Data: Center for Consumer Information and Insurance Oversight, [Summary of 2016 Medical Loss Ratio Results](#) (CCIIO, Dec. 2017).

Source: Mark A. Hall and Michael J. McCue, [How the ACA's Medical Loss Ratio Rule Protects Consumers and Insurers Against Ongoing Uncertainty](#) (Com July 2019). <https://doi.org/10.26099/hciv-x297>

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This backstop against excessive profits is expected to have even more importance once full financial reporting is complete for 2018, which included a second round of substantial rate increases.²⁰ Despite owing rebates for 2017, insurers continued to increase rates for 2018 in part because they had to file their 2018 rates in mid-2017 without their complete 2017 financial performance data in hand. Also, insurers had to anticipate possible disruptions to the market caused by changes to the ACA's market rules.

By building in more cushion than they needed, insurers are expecting substantially lower loss ratios in 2018, which will generate much higher rebates. One recent analysis projects that loss ratios in the individual market will drop to 70 percent for 2018, resulting in close to \$1 billion in rebates.²¹

These consumer protections could have substantially more impact in some states than in others, depending on how much insurers were permitted to increase rates in each state. Across 50 states and the District of Columbia, insurers in 26 jurisdictions had no rebates for 2017 in the individual market, and rebates were less than \$5 a person in 11 states. However, in seven states (Arizona, Massachusetts, Minnesota, Mississippi, Missouri, New Hampshire, and New Mexico), rebates exceeded \$50 per person in the 2017 individual market.²² Notably, in four of these seven states (Minnesota, Missouri, New Hampshire, and New Mexico), a single insurer with profit margins of 15 percent or greater was solely responsible for the rebate (Exhibit 4).

Exhibit 4**Rebates in Four Sample States**

Data: Center for Consumer Information and Insurance Oversight, [Summary of 2016 Medical Loss Ratio Results](#) (CCIIO, Dec. 2017).

Source: Mark A. Hall and Michael J. McCue, [How the ACA's Medical Loss Ratio Rule Protects Consumers and Insurers Against Ongoing Uncertainty](#) (Com July 2019). <https://doi.org/10.26099/hciv-x297>

Conclusion

When the ACA's medical loss ratio rule first took effect in 2011, its protections were more visible to consumers, who received significant rebates while insurers substantially reduced overhead costs. In subsequent years, these protections became less noticeable, as insurers in the individual market struggled with substantial losses.

Now that the individual market appears to have regained profitability, however, the ACA's MLR rule has renewed relevance, both for consumers and insurers. The rule has resumed its important role of paying rebates to consumers whose health plans enjoy substantial profits. Additionally, the MLR rule affords insurers that suffer substantial losses an opportunity to recoup some of those losses by averaging a low loss ratio against two prior years of high loss ratios.

By smoothing out oscillations in profits and losses, the ACA's MLR rebate rule holds the prospect of not only continuing to protect consumers, but also of helping to counter some of the destabilizing effects of ongoing changes in regulatory policy in the individual market.

NOTES

1. Loss ratios are calculated as the three-year rolling average, meaning that the regulatory standard is applied each year to the insurer's average loss ratio during the prior three years.
2. In most states, large groups are those with more than 50 full-time workers, except in the few states (California, Colorado, and New York) that have opted to extend small-group rules to groups of 100 or less.
3. Michael J. McCue and Mark A. Hall, *The Federal Medical Loss Ratio Rule: Implications for Consumers in Year 3* (Commonwealth Fund, Mar. 2015).
4. Center for Consumer Information and Insurance Oversight, *The 80/20 Rule Increases Value for Consumers for Fifth Year in a Row* (CCIIO, Nov. 2016).
5. Center for Consumer Information and Insurance Oversight, *Summary of 2016 Medical Loss Ratio Results* (CCIIO, Dec. 2017).
6. Michael J. McCue and Mark A. Hall, "**On the Road to Recovery: Health Insurers' 2016 Financial Performance in the Individual Market**," *To the Point* (blog), Commonwealth Fund, Mar. 22, 2018.
7. Louise Norris, "**Billions in ACA Rebates Show 80/20 Rule's Impact**," *Healthinsurance.org*, May 10, 2019.
8. Charles Gaba, www.ACASignups.net (Rate Hikes menu); and Cynthia Cox, Rachel Fehr, and Larry Levitt, *Individual Insurance Market Performance in 2018* (Henry J. Kaiser Family Foundation, May 2019).
9. American Academy of Actuaries, *Drivers of 2018 Health Insurance Premium Changes* (AAA, July 2017).
10. Chris Sloan, Elizabeth Carpenter, and Chad Booker, *2019 Premium Increases Lowest on Average Since 2015* (Avalere, Sept. 13, 2018).
11. Mark A. Hall, *Stabilizing and Strengthening the Individual Health Insurance Market: A View from Ten States* (Brookings Institution, July 2018).
12. CCIIO, *The 80/20 Rule*, 2016.
13. Ashley Semanskee et al., *Insurer Participation on ACA Marketplaces, 2014–2018* (Henry J. Kaiser Family Foundation, Nov. 2017); and Craig Garthwaite and John A. Graves, "**Success and Failure in the Insurance Exchanges**," *New England Journal of Medicine* 376, no. 10 (Mar. 9, 2017): 907–10.
14. David Blumenthal, "**The Three R's of Health Insurance**," *To the Point* (blog), Commonwealth Fund, Mar. 5, 2014.
15. Sarah Goodell, *Risk Corridors* (*Health Affairs*, updated Feb. 2015).
16. Shelby Livingston, "**Feds Owe Health Insurers \$12.3 Billion in Unpaid Risk-Corridor Payments**," *Modern Healthcare*, Nov. 14, 2017.
17. See note 11.
18. Mark A. Hall and Michael J. McCue, "**How Do Noncompliant Health Plans Affect the Market?**" *To the Point* (blog), Commonwealth Fund, Nov. 15, 2017; and Kevin Lucia et al., *State Regulation of Coverage Options Outside of the Affordable Care Act: Limiting the Risk to the Individual Market* (Commonwealth Fund, Mar. 2018).
19. Following the ACA medical loss ratio rules, we include in medical claims the amounts insurers spend on quality improvement, which averaged less than 1 percent of premiums. Premiums are net of taxes and other assessments.
20. Norris, "Billions in ACA Rebates," 2019.
21. Cox, Fehr, and Levitt, "Individual Insurance Market," 2019.
22. These are averages weighted by membership across the entire market, including insurers that paid no rebates in the state.

Publication Details

Publication Date: July 2, 2019

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Citation:

Mark A. Hall and Michael J. McCue, *How the ACA's Medical Loss Ratio Rule Protects Consumers and Insurers Against Ongoing Uncertainty* (Commonwealth Fund, July 2019).

<https://doi.org/10.26099/hciv-x297>

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DOI: 10.1377/hlthaff.2018.05386
 HEALTH AFFAIRS 38,
 NO. 7 (2019): 1201-1206
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DATAWATCH

ACO Contracts With Downside Financial Risk Growing, But Still In The Minority

Success of the accountable care organization (ACO) model may require stronger financial incentives, such as including downside risk in contracts. Using the National Survey of ACOs, we explored ACO structure and contracts in 2012–18. Though the number of ACO contracts and the proportion of ACOs with multiple contracts have grown, the proportion bearing downside risk has increased only modestly.

Accountable care organizations (ACOs) have emerged as one of the value-based payment models that have been most broadly implemented by both public and private payers. With incentives to improve the quality of care and reduce health care spending, the ACO model has grown to include 1,011 ACOs in 2018, covering an estimated 32.7 million lives and representing 1,477 different public and commercial payment arrangements.¹ While the Centers for Medicare and Medicaid Services (CMS) has introduced new ACO programs, debates continue around the impact of the ACO model, including the contribution of downside risk—where ACOs that fail to meet their financial targets share re-

sponsibility with payers for losses.²

We used data from the National Survey of Accountable Care Organizations, administered four times in the period 2012–18, to analyze the evolution of ACOs. Twenty-eight percent of ACOs formed in 2012 initially had a contract with downside risk (exhibit 1). The proportion of ACOs taking on downside risk at the time they formed has varied over time, in part based on Medicare program initiation (for example, the Pioneer and Next Generation ACO programs could be joined only in 2012 and 2016–18, respectively). In 2018, 33 percent of ACOs reported having at least one contract with downside risk. Though the increase in the proportion of ACOs with a downside risk contract was modest, the

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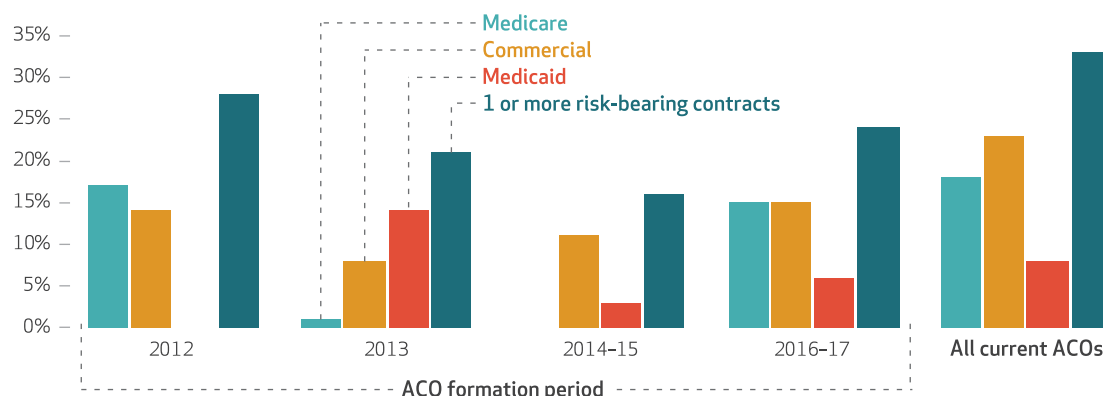
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EXHIBIT 1

Percent of accountable care organizations (ACOs) with risk-bearing payment contracts, 2012–18



SOURCE Authors' analysis of data for October 2012–February 2018 from waves 1–4 of the National Survey of ACOs. **NOTES** The responses reflect the ACOs' status at time of their formation. Additional information on the dates of ACO formation and survey fielding periods is in the online appendix (see note 3 in text). The 2012 survey did not ask about Medicaid contract type, which includes both managed Medicaid (commercial Medicaid managed care) plans and traditional Medicaid contracts. "Current ACOs" are those in existence in 2017. No responding ACOs in 2014–15 had a Medicare contract with downside risk, and thus a corresponding bar is not visible.

number of ACOs has grown roughly fivefold since 2012,¹ which could indicate that the number of ACO downside risk contracts has also grown substantially.

Study Data And Methods

To improve understanding of the rapidly growing number of ACOs, we fielded the National Survey of ACOs to all known ACOs in 2012. We fielded waves 2 and 3 to newly formed ACOs in 2013 and 2014–15, respectively. In 2017–18 we fielded a fourth wave (which we refer to as the 2018 survey) to all existing ACOs to examine how ACOs' structures, contracts, and capabilities had changed between early participants and recent adopters of the model.

Our 2018 survey sample included an estimated 862 ACOs with available contact data as of July 2017. Fifty-five percent of the sample returned a survey, and we analyzed 419 complete surveys (adjusted response rate: 48 percent). Six ACOs did not provide complete information on risk-bearing status, resulting in 413 valid responses (see the online appendix for further details on the survey implementation).³ For survey waves 1–3, adjusted response rates were 70 percent, 59 percent, and 61 percent, respectively. Additional information on earlier waves of the survey has been published previously.^{4,5}

We identified our sample through multiple sources, including CMS data, internet data collection, and information from Leavitt Partners. Respondents typically had leadership roles in the ACO, such as executive director, CEO, medical director, or chief operating officer.

Our study had several limitations. First, there is no official source of commercial ACO contract data, and ACOs without Medicare contracts are difficult to identify and contact because of this lack of information. Our results may underrepresent ACOs with solely commercial contracts. As a result, the survey response rates differed by payer, with Medicare ACOs having a significantly higher response rate than non-Medicare ACOs. However, a nonresponse analysis indicated no significant difference by presence of a contract with downside risk.

Second, while we were able to determine the presence of downside risk, we did not know the extent of this risk. Many ACO contracts either have provisions that limit downside risk or include only a portion of the organization's clinicians.

Study Results

While the proportion of ACOs taking on downside risk has remained relatively stable over

time—28 percent in 2012 versus 33 percent in 2018 (exhibit 1)—ACOs that take on downside risk differ in structure and contractual relationships from other ACOs.

LEADERSHIP, SERVICES, AND PARTICIPATING PHYSICIANS We examined the structure of ACOs from several perspectives: the nature of their leadership and ownership, the services they offered, and their size. Among all of the ACOs that responded to the 2018 survey, those bearing downside risk differed from other ACOs in their leadership structure: They were less likely to be physician led (43 percent versus 57 percent) and more likely to be jointly led by a hospital and physicians, led by a hospital, or led through some other arrangement (including coalitions and regional, county, or state organizations) (exhibit 2).

ACOs with downside risk in 2018 were less likely than other ACOs to be physician owned (30 percent versus 39 percent; see appendix exhibit A2).³ While similar in proportion of ownership by hospitals, downside-risk ACOs were more likely than other ACOs to be owned by other entities, including public ownership, non-profit ownership, or another privately owned for-profit entity.

Compared to other ACOs, those with downside risk were more likely to be integrated delivery systems (58 percent versus 42 percent; see exhibit 3). They also were more likely to include a hospital and have a greater number of hospitals.

ACOs that take on downside risk were more likely than other ACOs to directly provide or contract to deliver inpatient rehabilitation, routine specialty care, palliative or hospice care, home health or visiting nurse services, and skilled nursing facility care (exhibit 3).

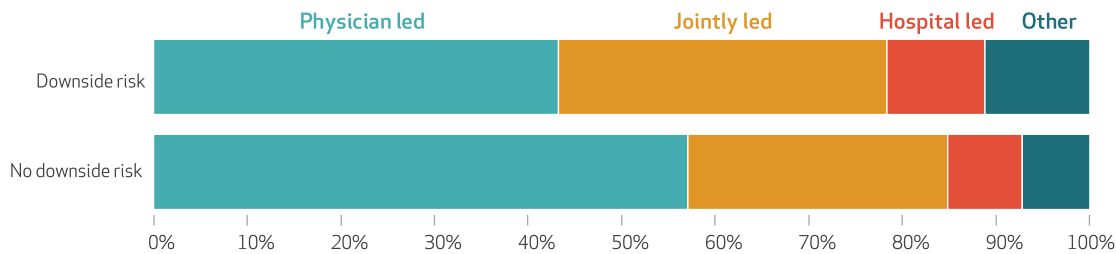
Compared to other ACOs, those with downside risk had more participating physicians (mean: 1,210 versus 441). Additionally, they were slightly more likely to report that 50–100 percent of their primary care patients were covered by an ACO contract (exhibit 3).

ACO CONTRACTS AND PRIOR EXPERIENCE WITH PAYMENT REFORM Overall, there has been a substantial increase in the number and variety of contracts held by ACOs. Over time, the proportion of ACOs with contracts with two or more payer types (such as Medicare, commercial, or Medicaid) increased from 42 percent for ACOs formed in 2012 to 57 percent for ACOs formed in 2016–17 (exhibit 4). Sixty-three percent of the ACOs that responded to the 2018 survey had contracts with two or more payers.

In 2018, 84 percent of ACOs had Medicare contracts, 72 percent had commercial contracts, and 23 percent had Medicaid contracts. Among the potential combinations of these contractual

EXHIBIT 2

Accountable care organizations (ACOs), by leadership type and financial risk acceptance, 2017-18



SOURCE Authors' analysis of data for 2017-18 from wave 4 of the National Survey of ACOs. **NOTES** "Downside risk" indicates the presence of an ACO contract in which ACOs that fail to meet their financial targets share responsibility for losses with payers. "No downside risk" indicates the presence of a contract that does not include the responsibility for losses if financial targets are not met. "Jointly led" means led by physicians and a hospital. "Other" includes coalitions and regional, county, or state organizations.

arrangements, the most common was to have both a commercial and a Medicare contract: 42 percent of ACOs with downside risk and the same share of other ACOs had such contracts (exhibit 5). However, ACOs with downside risk were less likely to have only a Medicare contract and were more likely to have contracts with all three types of payers, compared to other ACOs. Of ACOs with downside risk, a total of 81 percent had multiple contracts, compared to a total of 55 percent of ACOs without downside risk.

ACOs and their participating providers had varied levels of experience with other types of payment reform. ACOs with downside risk in 2018 were more likely to have participating providers with experience in bundled or episode-based payment, Medicare Advantage, capitated commercial plans, and other risk-bearing contracts (exhibit 6).

Discussion

As the ACO model matures, many policy makers believe it imperative to strengthen the incentives to improve performance, which could occur by increasing the breadth or depth of the financial incentives ACOs face. The breadth of contract incentives (whether and how payment contracts align incentives across payers) and the depth of incentives (the use of downside risk and whether or not there are caps on risk) both potentially influence organizational decision making and therefore quality and spending outcomes.⁶ As of 2018 the proportion of ACOs with multiple types of contracts had grown, but only one-third of ACOs had an ACO payment contract with downside risk. Compared to ACOs without downside risk, other ACOs are bigger, more likely to be vertically and horizontally integrated, and more likely to have been exposed to other types of payment reform and have more ACO

contracts across payer types (Medicare, Medicaid, and commercial).

There is general agreement within the research community that the incentives in the Medicare Shared Savings Program track 1 (82 percent of Medicare ACOs in 2018 were in this track)⁷ are relatively weak.⁸ Track 1 uses an

EXHIBIT 3

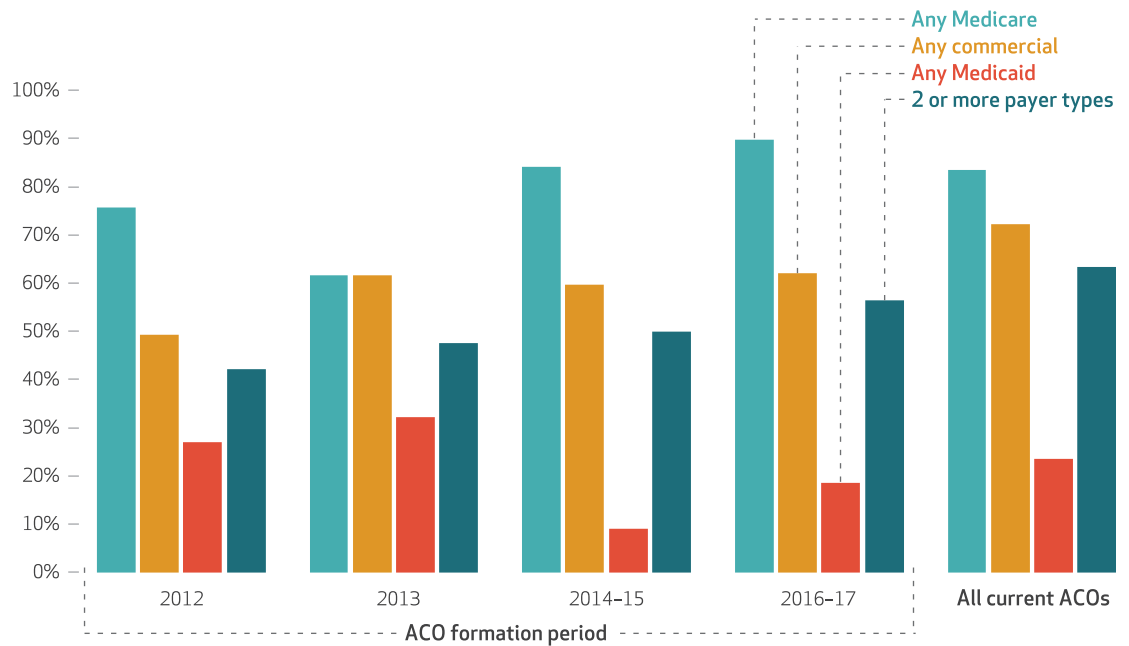
Participating accountable care organization (ACO) facilities, services, physicians, and patients, by ACO financial risk acceptance, 2017-18

	Downside risk		All (N = 413) ^a
	Yes (n = 135)	No (n = 278)	
Participating providers			
Integrated delivery system	58%	42%	47%
Any hospital	76%	54%	61%
Mean no. of hospitals if any	6.4	4.3	5.1
Critical access hospital	30%	20%	23%
Public hospital	13%	11%	12%
Federally qualified health center	24%	27%	26%
Nursing facility	38%	15%	22%
Behavioral health provider group ^b	39%	18%	25%
Service provided by or contracted for ACO			
Inpatient rehabilitation	59%	39%	46%
Routine specialty care	77%	59%	65%
Palliative or hospice care	65%	42%	50%
Home health or visiting nurse	68%	44%	52%
Skilled nursing facility	67%	39%	48%
Participating physicians and patients			
Mean no. of participating physicians	1,210	441	698
Mean no. of primary care physicians	400	192	260
Mean no. of specialists	805	257	440
50-100% of primary care patients covered by ACO contract	34%	24%	27%

SOURCE Authors' analysis of data for 2017-18 from wave 4 of the National Survey of ACOs. **NOTES** "Downside risk" and "no downside risk" are explained in the notes to exhibit 2. Participating providers are those to whom patients are attributed in the ACO. ^aSix ACOs did not provide complete information on risk-bearing status. ^bWave 4 respondents are considered to have a behavioral health provider group if they indicated that they had a behavioral health provider group, addiction treatment facility, or community mental health center.

EXHIBIT 4

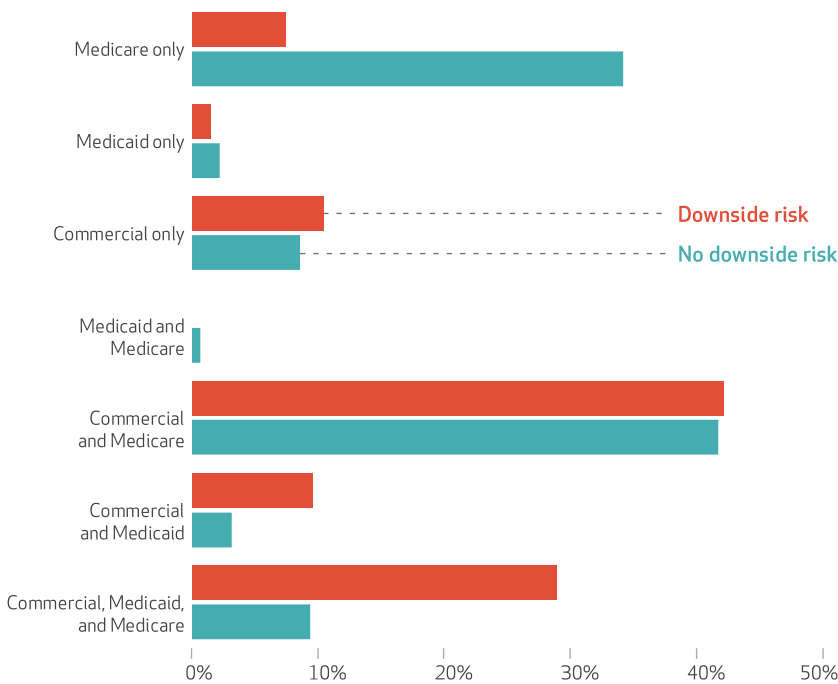
Accountable care organization (ACO) contract types in 2012-18



SOURCE Authors' analysis of data for October 2012–February 2018 from waves 1–4 of the National Survey of ACOs. **NOTES** The responses reflect the ACOs' status at time of their formation. Additional information on the dates of ACO formation and survey fielding periods is in the online appendix (see note 3 in text). "Medicaid" includes both managed (explained in the notes to exhibit 1) and traditional Medicaid contracts. "Current ACOs" are those in existence in 2017.

EXHIBIT 5

Accountable care organization (ACO) contract types, by financial risk acceptance, 2017-18



SOURCE Authors' analysis of data for 2017-18 from wave 4 of the National Survey of ACOs. **NOTES** "Downside risk" and "no downside risk" are explained in the notes to exhibit 2. Medicaid contract type includes both managed (explained in the notes to exhibit 2) and traditional Medicaid contracts. No ACOs with downside risk had only concurrent Medicaid and Medicare contracts.

upside-only risk contract, which rewards cost and quality improvement but does not penalize poor performance. Such upside-only risk contracts might not provide adequate incentive for ACOs to invest in care transformation efforts and could encourage underperforming ACOs to remain in ACO programs without generating savings (to take advantage of additional regulatory flexibilities afforded to ACOs).⁸ Conversely, a transition to downside risk could either encourage rapid care innovation or force ACOs to re-evaluate their participation if they are pushed to bear downside risk before they feel prepared to do so.⁹

Medicare administrators have pushed for increased risk in ACO contracts on the basis that ACOs with downside risk have achieved greater savings than other ACOs have.¹⁰ Supporting analyses, however, do not account for differences between the organizations that participate in shared downside risk contracts and those with upside-only risk contracts.¹⁰ Our results show that those bearing downside risk in ACO contracts also have more experience with other forms of risk-bearing contracts. Prior work indicates that ACO participants with risk-bearing experience are more likely to achieve shared savings with the Medicare program.¹¹ Therefore, the assumption that inducing more ACOs to bear

downside risk would result in increased savings should be questioned, based on what is known to date. Through the development of Pathways to Success in the Medicare Shared Savings Program, CMS has indicated that it plans to more quickly require Medicare ACOs to shift from upside-only to downside risk arrangements.¹² After implementation of the Pathways to Success rules, most Medicare ACOs chose to remain in the Shared Savings Program, but smaller physician-led ACOs dropped out at a higher rate than large physician- or hospital-led ACOs.¹³ While there may be value in decreasing the period of time during which ACOs have upside-only risk,¹⁴ there is also a need to balance participation and readiness to take on downside risk. Many of the ACOs without downside risk have a contract only with Medicare and are “dipping their toes” in the ACO waters.¹⁵

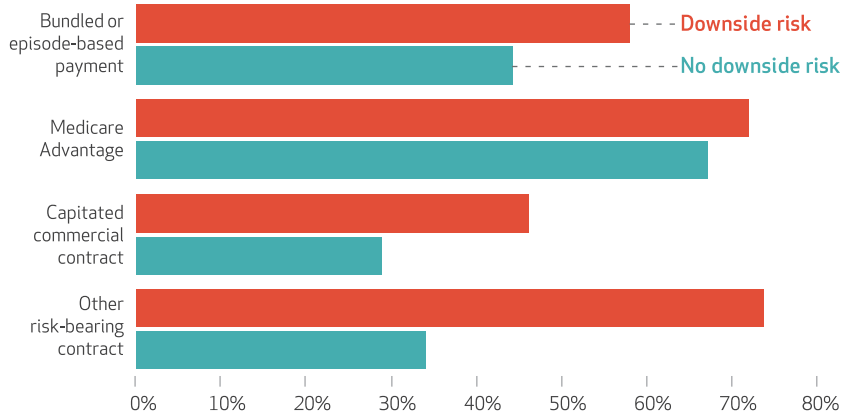
Analogously, we observed a subset of ACOs that moved more quickly to the use of risk-based contracting by initiating other types of value-based contracts (for example, episode payments) and ACO contracts across payers. The organizations prepared to make this transition are larger and more diverse, likely qualifying as “high” revenue ACOs within the Pathways to Success program.

Conclusion

Participation in other alternative payment models and the increasing number of ACO payment contracts per ACO suggest an increase in the breadth of value-based financial incentives.⁶ However, there has been relative stagnation in

EXHIBIT 6

Percent of accountable care organizations (ACOs) and participating providers with previous experience with payment reform, by ACO financial risk acceptance, 2017-18



SOURCE Authors’ analysis of data for 2017–18 from wave 4 of the National Survey of ACOs. **NOTES** The responses are in answer to this survey question: “Has your ACO or any of its participating providers previously joined any of the following payment reform efforts?” Participating providers are those to whom patients are attributed in the ACO. “Downside risk” and “no downside risk” are explained in the notes to exhibit 2. “Medicare Advantage” refers to that program as a provider-sponsored insurance plan.

the proportion of ACOs with deeper financial incentives: Only a third of ACOs in 2018 chose contracts with downside risk. Understanding the importance of downside risk in increasing the impact of the ACO model, the hesitancy of ACOs, and the levers that could be used to strengthen both the breadth and the depth of incentives while maintaining participation in the voluntary program is key to moving the ACO model forward. ■

This research was supported by the Commonwealth Fund (Grant No. 20160616 to Kristen Peck, Alexander Mainor, Benjamin Usadi, Elliott Fisher, and Carrie Colla), the National Institute of Mental Health of the National Institutes of Health (Grant No. R01MH109531 to Peck, Mainor,

Usadi, and Colla), and the California Health Care Foundation (Grant No. 20249 supported the National Survey of Accountable Care Organizations). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of

Health. The authors thank Marisa Tomaino for assistance with survey data cleaning. Fisher reports the receipt of personal speaking fees from Affirmant Health Partners. He is a member of the boards of directors of the Institute for Healthcare Improvement and the Fannie E. Rippel Foundation.

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Adults in Immigrant Families Report Avoiding Routine Activities Because of Immigration Concerns

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July 2019

Changes in federal immigration policies and heightened immigration enforcement over the last several years have caused fear and insecurity for many immigrant families across the country. In addition to stories of rising fear among families reported in the press,¹ several studies have documented evidence of widespread anxiety and instability among immigrant families and children (Artiga and Ubri 2017; Cervantes, Ullrich, and Matthews 2018; The Children’s Partnership and California Immigrant Policy Center 2018; Gándara and Ee 2018; Roche et al. 2018; Rogers 2017). A recent Urban Institute study shows that nearly one in seven adults in immigrant families report that they or a family member did not participate in a noncash government benefit program in 2018 for fear of risking future green card status as the administration considered changing rules for “public charge” determinations (Bernstein et al. 2019). Beyond avoiding participation in public programs, many immigrant families may be changing how they go about their daily lives. Reports show immigrant families increasingly avoiding routine activities, such as interacting with teachers or school officials, health care providers, and the police,² which poses risks for their well-being and the communities in which they live.

In this brief, we use the Well-Being and Basic Needs Survey (WBNS), a nationally representative, internet-based survey conducted in December 2018, to examine immigrant families’ reported avoidance of activities in various public settings (box 1). The survey included nearly 2,000 nonelderly

adults who are foreign born or live with one or more foreign-born family members (hereafter called “adults in immigrant families”), who make up about one-quarter of all nonelderly adults in the US, according to the American Community Survey. In addition to questions about “chilling effects” on participation in public assistance programs, the 2018 WBNS collected information on respondents’ avoidance of routine activities because they did not want to be asked or bothered about citizenship status. This information allows us to document how adults in immigrant families are changing their daily lives within the current immigration policy context.

We find the following:

- About one in six adults in immigrant families (17.0 percent) reported that they or a family member avoided activities in which they could be asked or bothered about citizenship status during 2018. The activities avoided most were those that risk interaction with police or other public authorities, such as driving a car (9.9 percent), renewing or applying for a driver’s license (9.0 percent), and talking to the police or reporting crime (8.3 percent). Other avoided activities included going to public places, like parks, libraries, or stores (7.8 percent); visiting a doctor or clinic (6.3 percent); using public transportation (5.8 percent); and talking with teachers or school officials (4.7 percent).
- About one in three adults in immigrant families with a more vulnerable visa and citizenship status—where one or more foreign-born relatives in the household do not have a green card (i.e., are not permanent residents) or US citizenship—reported that they or a family member avoided at least one routine activity. Meanwhile, over one in nine adults in families where all foreign-born family members have green cards or US citizenship reported this behavior.
- Among adults in immigrant families, Hispanic adults were nearly three times more likely (24.2 percent) than non-Hispanic white adults (8.5 percent) to report avoiding some activities.
- Controlling for observable characteristics, adults in immigrant families who avoided at least one activity were also more likely to report serious psychological distress.

BOX 1

Activities Captured by the Survey

For this measure, respondents were asked if they or someone in their family avoided any of the following activities in the past 12 months because they or the family member did not want to be asked or bothered about citizenship status:

- visiting a doctor or clinic
- talking with teachers or school officials
- talking to police or reporting crime
- renewing or applying for a driver's license
- driving a car
- using public transportation
- going to public places, such as parks, libraries, or stores

Background

Evidence shows that immigration policy developments are leading to increased fear and anxiety and avoidance of public space and interaction with authorities to avoid potential immigration enforcement (Artiga and Ubri 2017; Cervantes, Ullrich, and Matthews 2018; The Children's Partnership and California Immigrant Policy Center 2018; Gándara and Ee 2018; Roche et al. 2018; Rogers 2017). Some families, especially those with undocumented members, are making significant changes in their day-to-day behavior, with some parents avoiding leaving the house and keeping their children home to avoid potential interaction with immigration authorities or police (Artiga and Ubri 2017). Findings from a survey of California parents highlight this fear: many respondents, especially parents of young children and Latinos, reported that they "feel unsafe no matter where they are" (The Children's Partnership and California Immigrant Policy Center 2018). In surveys of service providers, most report that families were expressing fear about taking their children to school or going to parks or participating in other recreational activities. Immigrant-serving organizations report rising fear in immigrant communities and have identified a need for enhanced engagement by community-based organizations to reassure families, because they often serve as trusted sources to bridge families to public institutions and programs (Greenberg et al. 2019).

Data and Methods

Data and Sample

We draw on data from the December 2018 round of the Well-Being and Basic Needs Survey, a nationally representative survey of adults ages 18 to 64 launched in December 2017. This analysis is based on the WBNS core sample, as well as an oversample of noncitizens. For each round of the WBNS, the core sample is a stratified random sample drawn from Ipsos's KnowledgePanel, a probability-based online panel recruited primarily from an address-based sampling frame, and includes a large oversample of adults in low-income households.³ In December 2018, the survey also included an oversample of noncitizens to support analyses of current policy issues affecting immigrant families. The panel includes only respondents who can complete surveys administered in either English or Spanish, and adults without internet access are provided laptops and free internet access to facilitate participation.

We constructed a set of weights for analysis of the population of nonelderly adults who are foreign born or living with a foreign-born relative in their household. The weights are based on the probability of selection from the KnowledgePanel and benchmarks from the American Community Survey for nonelderly adults in immigrant families who are proficient in English or primarily speak Spanish.⁴ The language criterion is used in the weighting to reflect the nature of the survey sample, because the survey is only administered in English or Spanish.

Key Measures

SHARE OF ADULTS AVOIDING SELECT ACTIVITIES

We focus on the share of adults in immigrant families reporting that they or someone in their family avoided routine activities in the past 12 months because they or a family member did not want to be asked or bothered about citizenship status. This survey question was drawn from the National Latino Health and Immigration Survey conducted by Latino Decisions, with some minor modifications.⁵ Respondents could self-define family as either their immediate family or other relatives, who may or may not live with them in the same household.

SERIOUS PSYCHOLOGICAL DISTRESS

We assess differences in reported serious psychological distress between respondents whose families avoided one or more activities asked about in the survey and respondents whose families did not avoid these activities, controlling for the individual and household characteristics of these two groups. Serious psychological distress is measured using the six-item Kessler Psychological Distress Scale (K6 scale), which was designed to assess prevalence of nonspecific psychological distress in population surveys (Kessler et al. 2002).⁶

Analysis

We compare weighted estimates of the rate of self-reported avoidance of select activities across racial and ethnic groups and across types of households, defined according to the immigration and citizenship status of the family members living in the household. For analyses of psychological distress, we use multiple regression to adjust estimates for observable characteristics using the method of recycled predictions.⁷

We measure annual family incomes as a percentage of the 2018 federal poverty level. We impute missing responses for family income, marital status, and number of children in the household using a multiple-imputation regression approach. We allocate missing citizenship status data for respondents using their responses to the Ipsos panel profile question on citizenship and impute respondent citizenship status if that information is also missing. All estimates are weighted to be representative of the national population of nonelderly adults in immigrant families (as described above) and to account for the complex survey design.

Limitations

One limitation of the WBNS is its low response rate, which is comparable to other panel surveys that account for nonresponse at each stage of recruitment. However, previous studies assessing recruitment for the KnowledgePanel have found little evidence of nonresponse bias for core demographic and socioeconomic measures (Garrett, Dennis, and DiSogra 2010; Heeren et al. 2008), and WBNS estimates are generally consistent with benchmarks from federal surveys (Karpman, Zuckerman, and Gonzalez 2018). WBNS survey weights reduce, but do not eliminate, the potential error associated with sample coverage and nonresponse, and this is likely larger for the subgroup of adults in immigrant families. Though the weights are designed to produce nationally representative estimates for adults in immigrant families, this weighting approach implies that our analytic sample of 1,950 adults in immigrant families has precision comparable to a simple random sample of approximately 800 adults because of the design effect, increasing the sampling error around our estimates.

In addition, because the WBNS is only administered in English and Spanish, our restricted analytic sample does not describe the experiences of the full spectrum of adults in immigrant families. Our study excludes adults with limited English proficiency whose primary language is not Spanish, so the experiences of adults with limited English proficiency who speak other languages are not captured. We estimate that the excluded adults who do not speak English or Spanish represent between 5 and 15 percent of all nonelderly adults in immigrant households, as defined for this brief; according to the 2017 American Community Survey, 5 percent of this group speaks English less than “well”⁸ and speaks a primary language other than Spanish.

Some measurement error is likely for questions related to respondent citizenship status and that of relatives in the household, particularly among adults who are undocumented or have been in the US for a short time (Van Hook and Bachmeier 2013).

Because the question about avoidance of routine activities because of immigration concerns was not included in the previous round of the WBNS, we do not have a baseline from which to measure changes in these behaviors over time, nor can we directly assess the extent to which avoidance of these activities is caused by recent changes in immigration policy and enforcement.

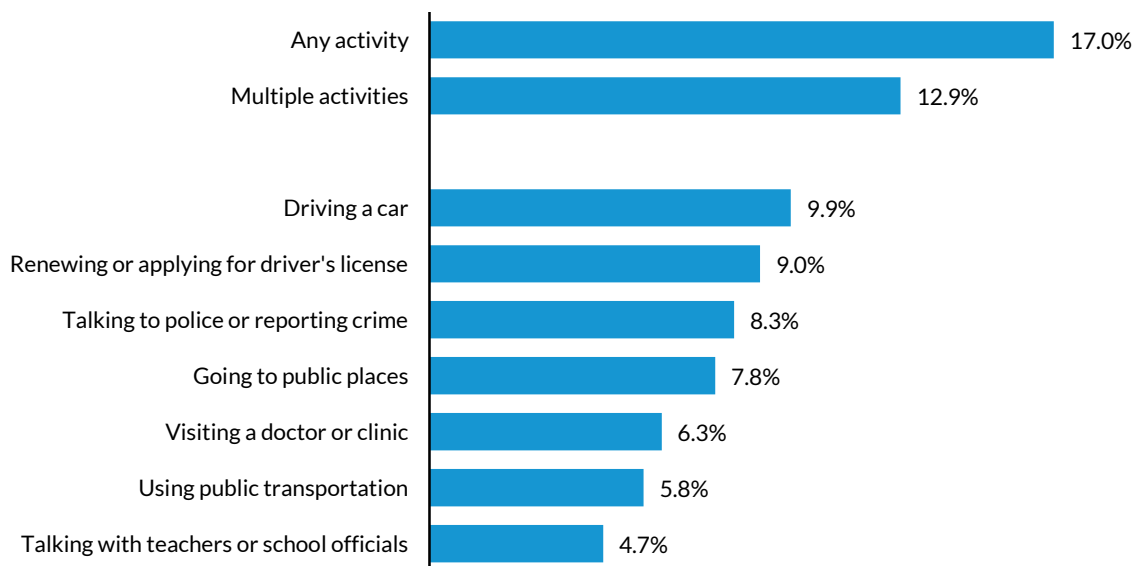
Findings

About one in six adults in immigrant families (17.0 percent) reported that they or a family member avoided activities in which they could be asked or bothered about citizenship status during 2018. The activities avoided most were those that risk interaction with police or other public authorities, such as driving a car (9.9 percent), renewing or applying for a driver's license (9.0 percent), and talking to the police or reporting crime (8.3 percent). Other avoided activities included going to public places, like parks, libraries, or stores (7.8 percent); visiting a doctor or clinic (6.3 percent); using public transportation (5.8 percent); and talking with teachers or school officials (4.7 percent).

Overall, 17.0 percent of adults in immigrant families reported that they or a family member avoided at least one of the activities identified in the survey during 2018 (figure 1). About one in eight (12.9 percent) reported avoiding more than one activity during the year.

FIGURE 1

Share of Adults in Immigrant Families in Which Someone Avoided the Following Activities in the Past Year Because They Did Not Want to Be Asked or Bothered about Citizenship Status, December 2018



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Source: Well-Being and Basic Needs Survey, December 2018.

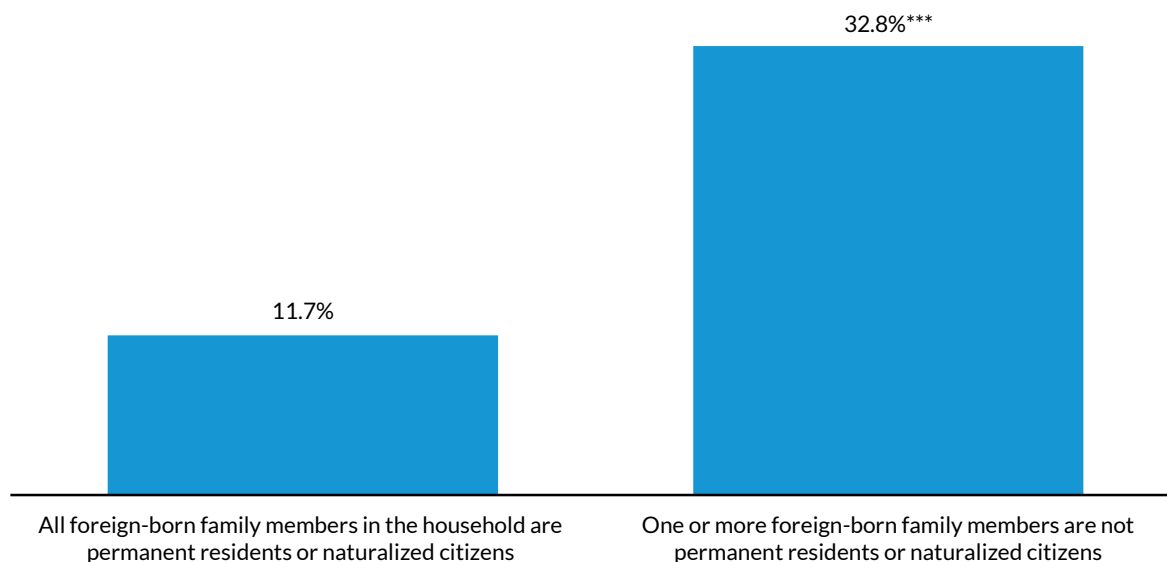
Notes: Adults are ages 18 to 64. Respondents could report avoidance of activities for themselves or someone else in their family.

About one in three adults in immigrant families with a more vulnerable visa and citizenship status—where one or more foreign-born relatives in the household do not have a green card (i.e., are not permanent residents) or US citizenship—reported that they or a family member avoided at least one activity. Meanwhile, over one in nine adults in families where all foreign-born family members have green cards or US citizenship reported this behavior.

Avoidance of some activities was especially common among adults in families in which one or more foreign-born relatives are not permanent residents or citizens, at 32.8 percent (figure 2). This group was nearly three times more likely to report avoiding these activities than adults in relatively secure families (where all foreign-born relatives have permanent residency or are naturalized US citizens).⁹

However, this retreat from public spaces also occurs among immigrant families with more secure immigration and citizenship statuses. Even within families where all foreign-born relatives have green cards or are naturalized, more than one in nine adults (11.7 percent) reported that they or their relatives had avoided specified activities in the previous year.

FIGURE 2
Share of Adults in Immigrant Families in Which Someone Avoided At Least One Select Activity in the Past Year Because They Did Not Want to Be Asked or Bothered about Citizenship Status, by Household Immigration and Citizenship Status, December 2018



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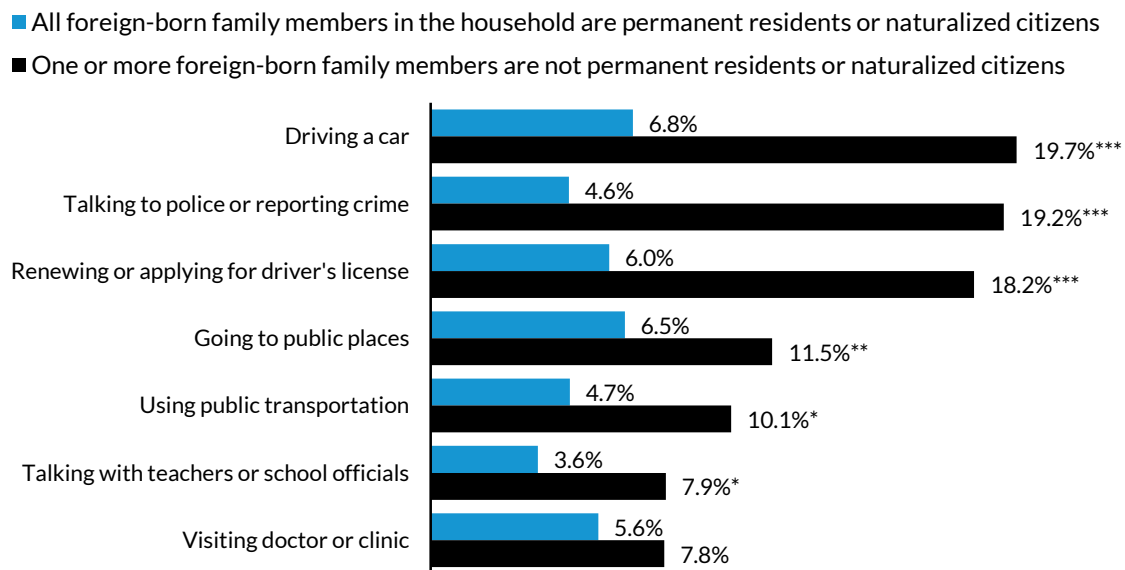
Source: Well-Being and Basic Needs Survey, December 2018.

Notes: Adults are ages 18 to 64. Activities include visiting a doctor or clinic, talking with teachers or school officials, talking to police or reporting crime, renewing or applying for a driver's license, driving a car, using public transportation, or going to public places, such as parks, libraries, or stores. Respondents could report avoidance for themselves or for someone else in their family. Households are classified by the citizenship and immigration status of foreign-born members, and native-born members (including the respondent) may be included in each group.

*/**/*** Estimate differs significantly from adults in households where all foreign-born family members are permanent residents or naturalized citizens at the 0.10/0.05/0.01 level, using two-tailed tests.

Adults in families with less secure immigration statuses, where one or more foreign-born relatives do not have green cards or naturalized citizenship, reported avoiding certain activities at higher rates. Nearly one in five (19.7 percent) adults in this group reported that they or a family member avoided driving a car, almost three times the rate for adults whose foreign-born family members are all permanent residents or naturalized citizens (6.8 percent; figure 3).¹⁰ Around one in five adults in the less secure group reported avoiding talking to the police (19.2 percent) or renewing or applying for a driver's license (18.2 percent); smaller shares reported avoiding going to public spaces (11.5 percent), using public transportation (10.1 percent), or talking to teachers or school officials (7.9 percent). For five of the seven activities, these rates were two to four times higher than those reported by adults in families with more secure statuses, where all foreign-born relatives are permanent residents or naturalized citizens.

FIGURE 3
Share of Adults in Immigrant Families in Which Someone Avoided the Following Activities in the Past Year Because They Did Not Want to Be Asked or Bothered about Citizenship Status, by Household Immigration and Citizenship Status, December 2018



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Source: Well-Being and Basic Needs Survey, December 2018.

Notes: Adults are ages 18 to 64. Public places include parks, libraries, or stores. Respondents could report avoidance of activities for themselves or for someone else in their family. Households are classified by the citizenship and immigration status of foreign-born members, and native-born members (including the respondent) may be included in each group.

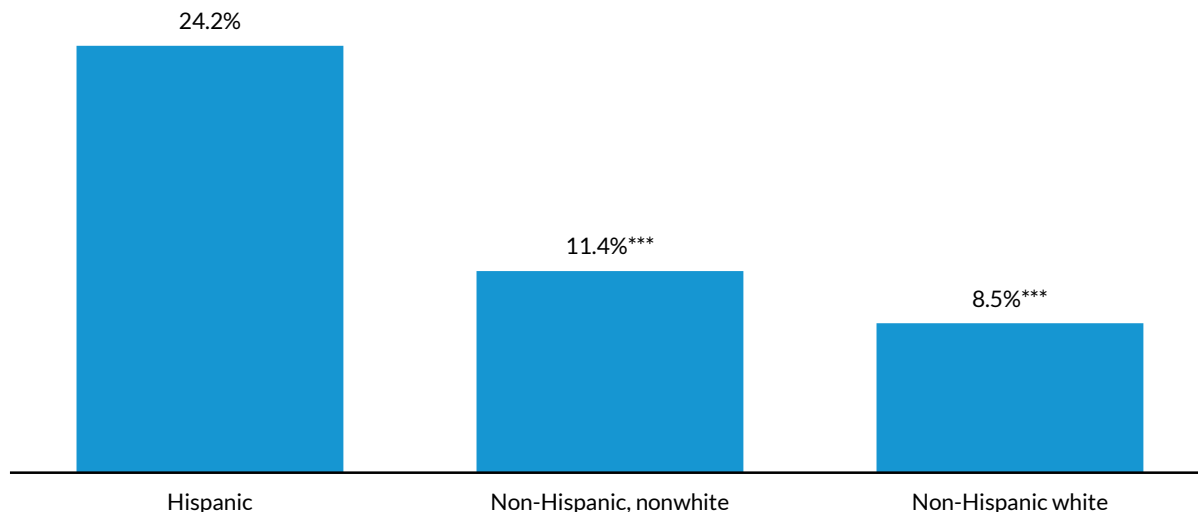
*/**/** Estimate differs significantly from adults in households where all foreign-born family members are permanent residents or naturalized citizens at the 0.10/0.05/0.01 level, using two-tailed tests.

Among adults in immigrant families, Hispanic adults were nearly three times more likely (24.2 percent) than non-Hispanic white adults (8.5 percent) to report avoiding some activities.

Compared with other racial and ethnic groups, Hispanic adults were more likely to avoid some activities. About one in four Hispanic adults (24.2 percent) reported that they or a family member avoided the specified activities in the past year (figure 4). Hispanic adults were also more likely than their non-Hispanic, nonwhite counterparts to report avoiding these activities (24.2 percent versus 11.4 percent).

FIGURE 4

Share of Adults in Immigrant Families in Which Someone Avoided At Least One Select Activity in the Past Year Because They Did Not Want to Be Asked or Bothered about Citizenship Status, by Respondent Race and Ethnicity, December 2018



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Source: Well-Being and Basic Needs Survey, December 2018.

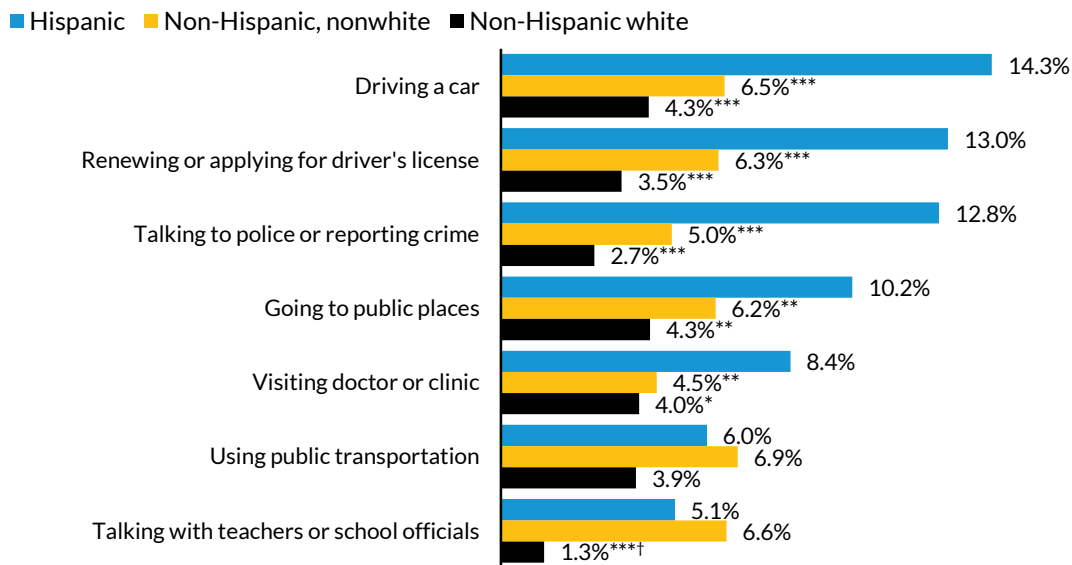
Notes: Adults are ages 18 to 64. Activities include visiting a doctor or clinic, talking with teachers or school officials, talking to police or reporting crime, renewing or applying for a driver's license, driving a car, using public transportation, or going to public places, such as parks, libraries, or stores. Respondents could report avoidance of activities for themselves or for someone else in their family. Non-Hispanic, nonwhite includes respondents who are black and other or multiple races.

*/**/** Estimate differs significantly from Hispanic adults at the 0.10/0.05/0.01 level, using two-tailed tests.

Among Hispanic adults in immigrant families, 14.3 percent reported avoiding driving a car, 13.0 percent reported avoiding renewing or applying for a driver's license, and 12.8 percent reported avoiding talking to the police or reporting crime (figure 5). Some also reported avoiding going to public spaces (10.2 percent), visiting a doctor or clinic (8.4 percent), using public transportation (6.0 percent), and talking to teachers or school officials (5.1 percent).

For three of the seven activities surveyed, Hispanic adults were more than twice as likely as non-Hispanic, nonwhite adults to report avoidance. For six of the seven, Hispanic adults were two to five times more likely than non-Hispanic white adults to report that someone in their family avoided such activities.

FIGURE 5
Share of Adults in Immigrant Families in Which Someone Avoided the Following Activities in the Past Year Because They Did Not Want to Be Asked or Bothered about Citizenship Status, by Respondent Race and Ethnicity, December 2018



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Source: Well-Being and Basic Needs Survey, December 2018.

Notes: Adults are ages 18 to 64. Public places include parks, libraries, or stores. Respondents could report avoidance of activities for themselves or someone else in their family. Non-Hispanic, nonwhite includes respondents who are black or other or multiple races.

*/**/** Estimate differs significantly from Hispanic adults at the 0.10/0.05/0.01 level, using two-tailed tests.

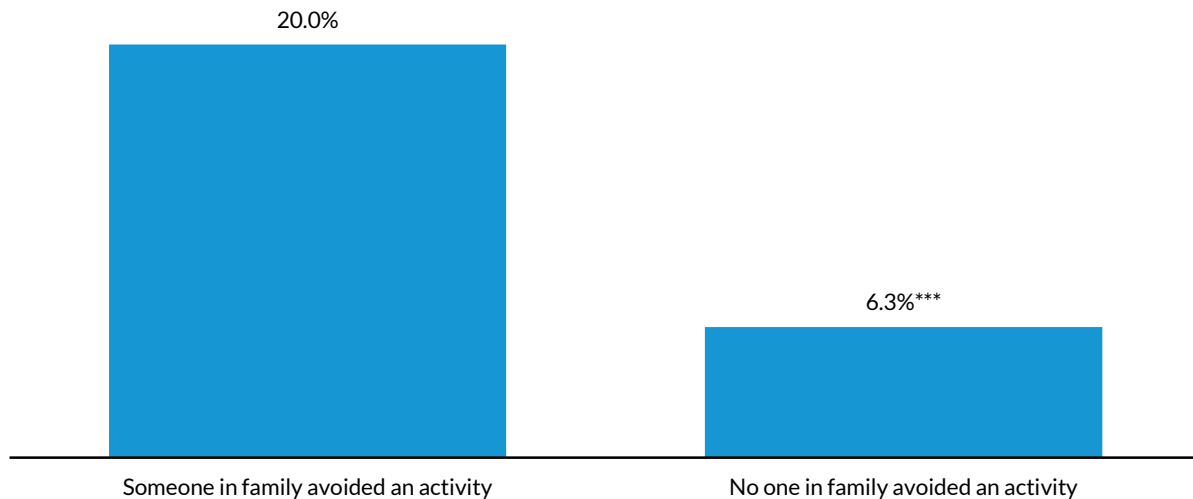
† Estimate for avoiding talking with teachers or school officials among non-Hispanic white adults does not differ significantly from zero.

Controlling for observable characteristics, adults in immigrant families who avoided at least one activity were also more likely to report serious psychological distress.

Adults in immigrant families that avoided surveyed activities were three times more likely to report experiencing serious psychological distress than adults in immigrant families who did not avoid these activities. Controlling for observable characteristics, one in five (20.0 percent) reported a score of 13 or higher on the K6 scale, indicating serious psychological distress (figure 6). In contrast, 6.3 percent of adults in immigrant families who did not report avoidance of such activities reported serious psychological distress.

FIGURE 6

Share of Adults in Immigrant Families Reporting Serious Psychological Distress in the Past 30 Days, by Avoidance of Select Activities in the Past Year Because They Did Not Want to Be Asked or Bothered about Citizenship Status, December 2018



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Source: Well-Being and Basic Needs Survey, December 2018.

Notes: Adults are ages 18 to 64. Estimates are regression adjusted. Serious psychological distress means a respondent reported a score of 13 or higher on the K6 scale of psychological distress. Activities include visiting a doctor or clinic, talking with teachers or school officials, talking to police or reporting crime, renewing or applying for a driver's license, driving a car, using public transportation, or going to public places, such as parks, libraries, or stores. Respondents could report avoidance of activities for themselves or someone else in their family.

*/**/** Estimate differs significantly from adults in families where someone avoided any activity at the 0.10/0.05/0.01 level, using two-tailed tests.

Discussion

Our findings show that about one in six adults in immigrant families reported that in 2018, they or a family member avoided routine activities, such as driving a car, talking to police or reporting crime, or going to public places, because of concerns about being asked or bothered about their citizenship status. Respondents saying that their families avoided these activities were also more likely to report serious psychological distress, suggesting that the current immigration policy climate may be affecting people beyond such changes to their daily lives; however, it is not possible to draw a causal link from these data.

We find that nearly one-third of adults in families with less secure immigration statuses reported that they or a family member avoided one or more specified activities in the past year. However, the results for adults in families with relatively "safe" immigration status are even more striking: more than one in nine adults in immigrant families where all foreign-born family members in the household have green cards or are naturalized citizens reported that they or someone in their family avoided these

activities in 2018. This illustrates the ripple effects of immigration policies and the generalized fear within immigrant communities; even green card holders and naturalized citizens experience insecurity. In addition, many immigrant families contain multiple immigration and citizenship statuses, including a combination of US-born citizens, naturalized citizens, green card holders, and foreign-born people who lack permanent residency status. Individuals may perceive a threat to themselves or to their relatives: of immigration enforcement (i.e., deportation); risks to future visa adjustment, continuation of green card status, or naturalization; or harassment or discrimination along ethnic lines.

We find that Hispanic respondents are significantly more likely than non-Hispanic respondents to avoid these activities. This aligns with evidence that Hispanic people, regardless of immigration status, suffer mental and physical health impacts from immigration enforcement policies and experience fear around interaction with public authorities through “racialized legal status” (Asad and Clair 2018; Pedraza, Cruz Nichols, and LeBrón 2017; Perreira and Pedroza 2019).

Many reports show families avoiding seeking medical care or participating in public assistance programs for fear of immigration consequences, especially in the context of proposed changes to the “public charge” rule (Bernstein et al. 2019; New York City Department of Social Services and Mayor’s Office of Immigrant Affairs 2019).¹¹ Health and well-being outcomes may be affected by this reluctance to interact with medical providers, schools, police, and other key institutional settings in communities where adults and children receive services and engage in routine activities. If people are afraid to leave their houses or drive their cars, it may threaten their access to jobs and a steady income, their children’s schools and healthy development, necessary medical services, and social connections essential for well-being. This affects not only the members of immigrant families, but other community members who benefit from all residents having basic needs met, being able to work, and reporting crimes to support public safety.

Some states and localities have taken proactive steps to reassure immigrant families who feel vulnerable. Cities and counties have come together in coalitions like Cities for Action or Welcoming America that include an array of measures, including legal assistance programs, know-your-rights educational campaigns, citizenship promotion and education, and engagement and outreach efforts to strengthen relationships with police departments and local government agencies (New York City Mayor’s Office of Immigrant Affairs 2019). At the local level, some school districts are advancing efforts to support students in immigrant families in school and early childhood care settings by creating safety plans, family education materials, and community dialogues.¹² States and attorneys general have enacted legislation or issued guidance or executive orders on protecting schools, hospitals and clinics, workplaces, and courts as spaces safe from immigration enforcement by specifying guidance for people working in those spaces on asking about immigration status and providing information to or otherwise cooperating with federal immigration enforcement authorities (National Immigration Law Center 2018). In addition, immigrant-serving providers, including medical professionals, educators, and business leaders, are taking steps to support immigrant communities by educating members, building public awareness, and adopting safe-space policies. Such efforts may help mitigate fear and patterns of withdrawal from public spaces caused by immigration policy developments.

Federal immigration policies appear to be having widespread ripple effects, with fear and retreat from routine activities occurring in immigrant families regardless of specific immigration and citizenship status. Our evidence suggests that many adults in immigrant families may be changing the way they live their daily lives in their communities. In future work, it would be valuable to assess whether immigrant families are less likely to avoid these everyday activities in places that have invested in efforts to create welcoming and safe communities and to assess which strategies prove most effective. Potential consequences and impacts for health and well-being, for immigrant families and the broader communities where they reside, will be important to monitor.

Notes

- ¹ Sara Knuth, “They Stay Home for Days, Give Up Driving, and Won’t Sign Their Name to Documents. For Immigrants and Refugees in Greeley, Life Can Be Defined by Fear,” *Greeley (CO) Tribune*, February 17, 2019, <https://www.greeleytribune.com/news/they-stay-home-for-days-give-up-driving-and-wont-sign-their-name-to-documents-for-immigrants-and-refugees-in-greeley-life-can-be-defined-by-fear/>.
- ² Ike Swetlitz, “Immigrants, Fearing Trump’s Deportation Policies, Avoid Doctor Visits,” *Stat News*, February 24, 2017, <https://www.statnews.com/2017/02/24/immigrants-doctors-medical-care/>; Nicole Acevedo, “Immigration Policies, Deportation Threats Keep Kids out of School, Report States,” *NBC News*, November 20, 2018, <https://www.nbcnews.com/news/latino/immigration-policies-deportation-threats-keep-kids-out-school-report-states-n938566>; Chantal Da Silva, “Immigration Group Sees Nearly 80 Percent Spike in Reports of ‘Abusive Partners’ Threatening to Call ICE to Stop Victims from Pressing Charges,” *Newsweek*, April 16, 2019, <https://www.newsweek.com/immigration-group-sees-nearly-80-spike-reports-abusive-partners-threatening-1398082>.
- ³ For additional information on the WBNS’s design and weighting, see Karpman, Zuckerman, and Gonzalez (2018).
- ⁴ We define adults with English proficiency as those who speak English at least “well,” as classified in the American Community Survey. Adults with limited English proficiency are those who speak English less than “well.” This is a broader measure than is commonly used to define English proficiency; in most analyses, a person must speak English “very well” to be classified as having English proficiency (Wilson 2014). We use the following measures for weighting: gender, age, race and ethnicity, educational attainment, presence of children under age 18 in the household, census region, homeownership status, family income as a percentage of the federal poverty level, access to the internet, and family composition. We benchmark non-Hispanic “other race” respondents by two categories: (1) other race born in Asia and (2) multiple or other races not born in Asia.
- ⁵ “RWJF Center for Health Policy at UNM Releases Major National Survey of Latino Health and Immigration,” Robert Wood Johnson Foundation Center for Health Policy at the University of New Mexico, accessed July 11, 2019, <http://healthpolicy.unm.edu/node/570671>. The exact phrasing of the survey question was: “We hear a lot these days about people getting questions about their immigration status just because of how they look or how they talk. For some people, this has changed how they go about their daily life. In the past 12 months, have you or anyone in your family ever avoided doing any of the following because you did not want to be bothered or asked about your citizenship status? Visiting a doctor or clinic; Talking with school teachers or officials; Talking to police or reporting crime; Renewing or applying for a driver’s license; Driving a car; Using public transportation; Going to public places, such as parks, libraries, or stores.”
- ⁶ Though not diagnostic of any one disorder, psychological distress is often characterized by symptoms typical of depression and anxiety (Drapeau et al. 2012). The K6 scale includes a series of questions that asks respondents how often they felt the following in the past 30 days: nervous, hopeless, restless or fidgety, so sad that nothing could cheer them up, that everything was an effort, worthless. The scores for each response item range from 0 (low) to 4 (high), with a cumulative score ranging from 0 to 24. Scores of 13 to 24 indicate serious psychological distress. Some research suggests that achieving measurement equivalence across linguistically diverse groups is challenging when using the K6 scale (Kim et al. 2016).

⁷ Characteristics include age, gender, race and ethnicity, urban or rural residence, census region, educational attainment, family income, family composition, family size, presence of children in the household, presence of noncitizens in the household, respondent citizenship status, chronic conditions, primary language, and self-reported health status.

⁸ See endnote 4.

⁹ Among survey respondents, about 76 percent lived in households where all foreign-born family members in the household are permanent residents or naturalized citizens, and about 23 percent lived in households where one or more foreign-born family members are not permanent residents or naturalized citizens.

¹⁰ This group may include some undocumented immigrants. In most states, undocumented immigrants are not eligible for driver's licenses. Several states are considering changing this policy, as New York did recently. See Alexandra Villarreal, "States Consider Driver's Licenses for Undocumented Immigrants Amid Ramped Up Immigration Enforcement," *NBC*, April 23, 2019, <https://www.nbcwashington.com/news/politics/States-Drivers-Licenses-Undocumented-Immigrants-Immigration-Enforcement-508824221.html>; Vivian Wang, "Driver's Licenses for the Undocumented Are Approved in Win for Progressives," *New York Times*, June 27, 2019, <https://www.nytimes.com/2019/06/17/nyregion/undocumented-immigrants-drivers-licenses-ny.html>.

¹¹ Emily Baumgaertner, "Spooked by Trump Proposals, Immigrants Abandon Public Nutrition Services," *New York Times*, March 6, 2018, <https://www.nytimes.com/2018/03/06/us/politics/trump-immigrants-public-nutrition-services.html>; Caitlin Dewey, "Immigrants Are Going Hungry So Trump Won't Deport Them," *Washington Post*, March 16, 2017, https://www.washingtonpost.com/news/wonk/wp/2017/03/16/immigrants-are-now-canceling-their-food-stamps-for-fear-that-trump-will-deport-them/?utm_term=.1f0c672c0586; Helena Bottemiller Evich, "Immigrants, Fearing Trump Crackdown, Drop out of Nutrition Programs," *Politico*, September 3, 2018, <https://www.politico.com/story/2018/09/03/immigrants-nutrition-food-trump-crackdown-806292>.

¹² See reference materials supporting schools and educators on the Teaching Tolerance website: <https://www.tolerance.org/moment/supporting-students-immigrant-families>.

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Acknowledgments

This brief was funded by the Robert Wood Johnson Foundation as part of their support for the From Safety Net to Solid Ground initiative. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at urban.org/fundingprinciples.

We are grateful for advice from Francisco Pedraza and our colleagues Genevieve M. Kenney, Archana Pyati, and Elaine Waxman, as well as for David Kallick’s and Mayra Alvarez’s review of an earlier draft. It has also been valuable to be included in conversations to convene researchers organized by Renato Rocha and Jackie Vimo through the Protecting Immigrant Families campaign cochaired by the National Immigration Law Center and the Center for Law and Social Policy. We thank Rachel Kenney for editing.



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DOI: 10.1377/hlthaff.2018.05454
HEALTH AFFAIRS 38,
NO. 7 (2019): 1140–1144
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The People-to-People Health
Foundation, Inc.

DATAWATCH

Blue-Collar Workers Had Greatest Insurance Gains After ACA Implementation

Analyzing national survey data, we found that workers in traditionally blue-collar industries (service jobs, farming, construction, and transportation) experienced the largest gains in health insurance after implementation of the Affordable Care Act (ACA) in 2014. Compared to other occupations, these had lower employer-based coverage rates before the ACA. Most of the post-ACA coverage gains came from Medicaid and directly purchased nongroup insurance.

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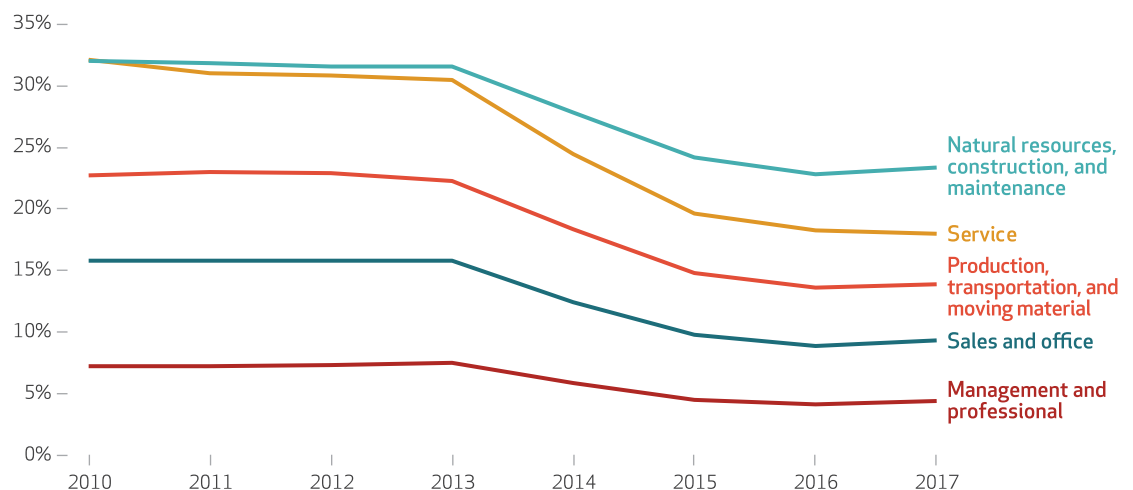
Before the Affordable Care Act (ACA), people who did not have health insurance through their employer had limited options for affordable coverage. Although employment is the primary source of health insurance,¹ rates of coverage vary by occupation—which raises the likelihood that the law's effect varied significantly across occupations. As policy makers continue to debate major changes to the ACA and Medicaid, it is important to understand which sectors of the workforce might be most affected by potential coverage reductions.

Using 2010–17 data from the American Com-

munity Survey (ACS), we found that workers in traditionally blue-collar industries (service jobs, farming, construction, and transportation) experienced the greatest reductions in uninsurance rates after implementation of the ACA's coverage expansions in 2014 (exhibit 1). Service workers saw a 14-percentage-point reduction in uninsurance from 2010 to 2017, while managers and professional workers, who typically have high rates of employer-sponsored insurance, saw a 3-percentage-point reduction.

EXHIBIT 1

Percent of workers who were uninsured, by standardized occupation group, 2010–17



SOURCE Authors' analysis of data for 2010–17 from the American Community Survey. **NOTES** The exhibit shows unadjusted trends. Occupations were categorized into five standardized groups as specified by the Office of Management and Budget. Management and professional jobs are typically considered white-collar jobs, and jobs in the other four groups are typically considered blue-collar jobs.

Study Data And Methods

DATA SOURCE The ACS, administered by the Census Bureau, is the federal government's largest survey, containing information about the population's social, economic, and demographic characteristics. The ACS sampled 2.9–3.6 million addresses annually in the period 2010–17, and overall response rates were 90–98 percent.

STUDY POPULATION Our sample included nonelderly adults ages 19–64 who were employed at the time of the survey.

The Standard Occupational Classification system,² maintained by the Office of Management and Budget (OMB), is used to classify respondents' occupations into twenty-three major occupational groups. We included all occupations except the military (whose members generally receive coverage directly from the government) and categorized them into five standardized groups as specified by OMB (see online appendix exhibit 1):³ management and professional occupations (such as chief executives, legislators, and physicians); service occupations (such as home health aides, food servers, and barbers); sales and office occupations (such as cashiers and secretaries); natural resources, construction, and maintenance occupations (such as farmers, fishers, and carpenters); and production, transportation, and material-moving occupations (such as machinists, welders, and truck drivers).

OUTCOME MEASURES Our outcomes were health insurance status and coverage type in the following categories: uninsured; Medicaid; employer-sponsored insurance; and directly purchased (nongroup) insurance, most of which is insurance obtained through the ACA Marketplaces but which also includes insurance obtained through the individual market outside of the Marketplaces.

STATISTICAL ANALYSIS For each coverage category, we used linear regression models to estimate unadjusted and adjusted changes between the pre-ACA period (2010–13) and each year of the post-ACA period (2014–17). Adjusted estimates controlled for a pre-ACA linear time trend, age, sex, citizenship, race/ethnicity, urban-rural residence, income, state-year unemployment rate, and state of residence.

We repeated our analysis stratified by all twenty-two major occupational groups (that is, twenty-three groups, less the military) and by state Medicaid expansion status as of December 2017. Finally, we examined whether the distribution of workers by occupation changed over time, since this could bias our results.

We used the ACS survey weights to produce nationally representative estimates. Analyses were conducted using SAS, version 9.4. The Part-

ners Human Research Committee deemed this study exempt from review.

LIMITATIONS Our study had several limitations. First, we lacked data on health care use or health outcomes. However, a large body of research suggests that the ACA's coverage gains have significantly improved access to care, financial protection, and health outcomes, and it is likely that the pattern of coverage gains found here will produce similar improvements.⁴

Second, the ACS also lacks information on individual preferences, employer-sponsored insurance offer rates, and firm size, factors that likely mediate some of the patterns we observed.

Third, there is the possibility of reporting error in the ACS. Prior research suggests that respondents may have difficulty distinguishing between Medicaid and subsidized Marketplace coverage. Estimates of changes in the uninsurance rate are less subject to this concern.⁵

Fourth, our time-series analysis lacked a control group. However, we adjusted for a range of demographic covariates and accounted for the economic recovery using state-year unemployment rates.

Study Results

Uninsurance rates differed by occupation, ranging in 2010 from 7.2 percent among managers and professionals to 32.1 percent among service workers (exhibit 1). Starting in 2014 the uninsurance rate declined across all occupation groups. Service workers had one of the highest uninsurance rates before the ACA and the largest drop afterward, going from 32.1 percent in 2010 to 18.0 percent in 2017—a decline of more than 14 percentage points.

Unsurprisingly, demographic and other characteristics—particularly sex, citizenship, race/ethnicity, income, and education—varied considerably across occupation groups (exhibit 2). However, there were no major changes in characteristics or in the overall mix of workers across groups between the pre- and post-ACA periods (appendix exhibits 2 and 3).³

In adjusted results, the uninsurance rate declined by 10.6 percentage points among service workers between the pre-ACA period and 2017 (exhibit 3 and appendix exhibit 4).³ Similarly, there were adjusted declines of 8.2 percentage points among people in production, transportation, and moving-material occupations; 7.7 percentage points among those in natural resources, construction, and maintenance occupations; and 6.8 percentage points among those in sales and office jobs. Managers and professionals had the lowest uninsurance rate before the ACA and the smallest drop in that rate—just 3.6 percent-

EXHIBIT 2

Demographic and other characteristics for each standardized occupation group, 2010–17

Characteristic	Occupation group					
	All	Management and professional	Service	Sales and office	Natural resources, construction, and maintenance	Production, transportation, and moving material
Sample size	10,344,420	4,069,849	1,681,309	2,412,074	933,102	1,248,086
Weighted sample						
Number	1,094,820,072	409,082,363	192,962,684	256,577,101	101,647,639	134,550,286
Percent	100.0	37.4	17.6	23.4	9.3	12.3
Mean age (years)	40.8	42.3	38.2	40.2	40.8	41.6
Male (%)	52.5	47.0	43.4	37.9	95.3	77.6
Noncitizen (%)	9.1	5.6	14.8	5.3	18.0	12.6
Race/ethnicity (%)						
Non-Hispanic white	64.3	72.2	52.4	65.6	61.8	57.0
Non-Hispanic black	11.1	8.7	15.6	11.9	6.3	14.3
Hispanic (white or black)	11.0	6.7	15.2	10.4	18.2	14.1
Asian	5.9	7.9	5.6	5.0	2.1	4.5
Other	7.7	4.6	11.3	7.1	11.7	10.1
Type of employment (%)						
Private	76.2	68.9	73.2	83.2	76.5	88.9
Public	14.7	21.6	16.2	10.0	7.8	5.8
Self-employed	9.1	9.5	10.6	6.8	15.7	5.3
Part-time status (%)	12.8	8.9	23.3	16.1	5.7	8.6
Median income (\$) 25–75 IQR	35,000 (19,396–59,999)	54,995 (33,796–87,992)	19,998 (10,997–31,998)	29,998 (16,198–48,100)	34,999 (20,498–53,999)	29,999 (18,998–47,999)
Education (%)						
Less than high school	8.5	1.4	15.4	4.9	21.1	17.3
High school diploma	24.9	8.8	33.4	27.7	40.8	44.1
Some college	33.1	25.3	39.0	43.0	31.6	30.6
College degree	21.6	36.6	10.2	20.2	5.7	6.8
More than college	12.0	27.9	2.0	4.2	0.9	1.3

SOURCE Authors' analysis of data for 2010–17 from the American Community Survey. **NOTES** Estimates are unadjusted and, other than the original sample size, are weighted to provide population estimates. Occupations were categorized as explained in the notes to exhibit 1. Part-time status is working less than thirty hours per week. IQR is interquartile range.

age points. Reductions in the uninsurance rate were significant for all groups (all $p < 0.001$).

Employer-sponsored insurance was the most common insurance type across all occupation groups. In the pre-ACA period managers and professionals were the most likely to have employer coverage (82.7 percent) (exhibit 3). Workers in natural resources, construction, and maintenance occupations (56.4 percent) and service workers (52.0 percent) were the least likely to have it. There were modest but significant gains in employer coverage among all occupation groups between the pre-ACA period and 2017, ranging from 1.9 percentage points to 3.1 percentage points (all $p < 0.001$).

After 2014 there were significant gains in coverage from Medicaid and directly purchased insurance. Service workers experienced the largest gains, with a 4.3-percentage-point increase in directly purchased insurance and a 5.8-percentage-

point increase in Medicaid (exhibit 3 and appendix exhibits 5 and 6).³ There were also large gains for workers in sales and office occupations (2.8 percentage points and 3.2 percentage points in directly purchased insurance and Medicaid, respectively); natural resources, construction, and maintenance occupations (2.8 percentage points and 3.0 percentage points); and production, transportation, and moving-material occupations (2.8 percentage points and 3.3 percentage points). Managers and professionals experienced increased coverage from directly purchased insurance and Medicaid, but to a much smaller degree (0.8 percentage points and 1.3 percentage points) (all $p < 0.001$).

Stratifying our sample into twenty-two specific occupational groups produced similar results (appendix exhibit 7).³ There were slight differences in the gains between full- and part-time workers, with full-time workers having larger

EXHIBIT 3
Adjusted changes in insurance coverage from 2010–13 to 2017, by source of insurance and standardized occupation group

	Estimated unadjusted mean percent		Adjusted percentage-point change
	Pre ACA (2010–13)	Post ACA (2017)	
UNINSURED			
Management and professional	7.3	4.4	–3.6
Service	31.1	18.0	–10.6
Sales and office	15.8	9.3	–6.8
Natural resources, construction, and maintenance	31.7	23.4	–7.7
Production, transportation, and moving material	22.7	13.9	–8.2
EMPLOYER-SPONSORED INSURANCE			
Management and professional	82.7	82.8	1.9
Service	52.0	54.3	1.9
Sales and office	71.6	71.7	2.0
Natural resources, construction, and maintenance	56.4	58.6	3.1
Production, transportation, and moving material	66.8	68.4	3.1
DIRECTLY PURCHASED INSURANCE			
Management and professional	10.1	10.6	0.8
Service	8.6	12.1	4.3
Sales and office	9.5	11.3	2.4
Natural resources, construction, and maintenance	7.9	9.8	2.8
Production, transportation, and moving material	6.2	8.5	2.8
MEDICAID			
Management and professional	2.0	3.9	1.3
Service	9.9	17.4	5.8
Sales and office	5.3	9.6	3.2
Natural resources, construction, and maintenance	4.7	9.0	3.0
Production, transportation, and moving material	6.4	11.1	3.3

SOURCE Authors' analysis of data for 2010–17 from the American Community Survey. **NOTES** Adjusted change estimates for all of the post-Affordable Care Act (ACA) years (2014, 2015, 2016, and 2017) are shown in appendix exhibit 4 (see note 3 in text). The adjusted changes are based on multivariable linear regression models that controlled for the pre-ACA linear time trend, age, sex, citizenship, race/ethnicity, urban-rural residence, income, state-year unemployment rate, and state of residence. All adjusted change estimates are significant ($p < 0.001$). Occupations were categorized as explained in the notes to exhibit 1.

gains in employer-sponsored insurance (appendix exhibit 8).³ Both full- and part-time workers had significant gains in directly purchased insurance and Medicaid (all $p < 0.001$), but these gains were larger among part-time workers.

Repeating our analysis separately by state Medicaid expansion status accentuated the coverage gains due to Medicaid in expansion states and directly purchased (nongroup) insurance in nonexpansion states (appendix exhibit 9).³ Overall coverage gains were larger in nonexpansion states than in expansion states. This finding contrasts with the results of many other studies of this issue, largely because our sample included only people who were employed, and the Medicaid expansion disproportionately benefited people outside of the workforce—such as students and people with health-related limitations.

Discussion

In our analysis of national survey data, we found that coverage gains associated with the ACA varied significantly by occupation, with the largest

gains occurring among nonmanagers and nonprofessionals—who were less likely to have employer-sponsored insurance. Service workers experienced the greatest increase in coverage rates, and large gains were also present for workers in farming and construction, sales and office, and industrial and manufacturing jobs. In other words, among the employed, the primary beneficiaries of the ACA's coverage expansion were those in traditionally blue-collar jobs. Meanwhile, managers and professionals already had high rates of employer coverage before the ACA and experienced the least amount of change in their overall uninsurance rate. Most of the gains in coverage across all occupation groups came from the combination of Medicaid and directly purchased (nongroup) insurance, the two main areas of the ACA's policy interventions. Notably, these changes were not simply the result of income differences across occupation groups or part-time versus full-time status, as our models adjusted directly for income and removing part-time workers from the sample had little effect on the findings. Rather, variation in coverage pri-

marily appeared to reflect disparities in coverage via employer-sponsored insurance, which led to a greater need for the ACA's new coverage options among blue-collar workers.

There are a variety of reasons why employed people might not be covered by employer-sponsored insurance: An estimated 43 percent of employers (especially smaller firms) do not offer health insurance coverage to their employees (or their dependents),⁶ some employees might not be eligible for coverage through their employer (because of part-time status, for example), some employees choose not to obtain insurance through their employer because of its cost (even if coverage is subsidized), and many people are self-employed.⁷ Our study thus complements recent analyses showing that nearly half of people on Medicaid are employed.⁸ Although take-up of employer-sponsored insurance is generally high if an employer offers health benefits, it is clear that employment does not guarantee coverage.

Our study contributes new evidence that large numbers of employed people benefited from the ACA's insurance provisions and that these positive effects on coverage were not due to

crowd-out, whereby people choose publicly subsidized insurance over employer coverage. Prior research has shown that the ACA has not resulted in any significant reductions in employment,⁹ compensation,¹⁰ hours of work,¹¹ employer coverage offer rates,¹² uptake of employer coverage,⁶ or overall employer coverage rates.¹³ Our results build on these findings, showing that employer coverage increased significantly among workers after the ACA. The ACA included two provisions—the individual and employer mandates—that may have contributed to increased coverage from employer-sponsored insurance.¹⁴ Whether employees' coverage declines with the repeal of the individual mandate in 2019 remains to be seen.

In conclusion, the ACA was associated with significant gains in coverage among all occupation groups, but the greatest gains were among nonmanagers and nonprofessionals. Policies that reduce Medicaid enrollment or disrupt the ACA's health insurance Marketplaces are likely to cause particular harm to people in the workforce who do not have ready access to employer-sponsored insurance—primarily blue-collar workers. ■

Sumit Agarwal's salary is supported by a National Research Service Award for Primary Care (Award No. T32-HP10251) from the Health Resources and Services Administration and by the Ryoichi

Sasakawa Fellowship Fund. Benjamin Sommers reports receiving grant funding from the Agency for Healthcare Research and Quality, Commonwealth Fund, REACH Healthcare Foundation,

and Robert Wood Johnson Foundation in the past twelve months. The views expressed in this article are those of the authors and do not represent the views of the US government.

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Options for Improving Timely Access to Care Reporting in California

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For more information on this publication, visit www.rand.org/t/RR3115

Published by the RAND Corporation, Santa Monica, Calif.

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Preface

Timely access to health care is an important feature of a high-performing health system. There is, however, very little evidence to inform metrics and appropriate benchmarks for performance. Given the limitations of the literature, the state of California has taken the lead in developing metrics, standards, and an evolving methodology for collecting the data needed to monitor timely access to care. The California Department of Managed Health Care (DMHC) has developed the Provider Appointment Availability Survey (PAAS), which health plans regulated by the department are required to implement. The PAAS methodology has changed over time to address issues with the data collection and reporting process. The DMHC is required to develop final regulations regarding the methodology by January 2020.

Health plans that are required to implement the survey and report timely access data to the DMHC have raised a number of concerns about the methodology. In this report we describe and document the issues raised by the health plans and other stakeholders and identify and assess potential solutions. The results of this work should be of interest to policymakers, health plans, health care providers, and health care consumers.

This research was funded by the California Association of Health Plans and carried out within the Access and Delivery Program of RAND Health Care.

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Summary

Timely access to care is an important element of a high-performing health care system. There is, however, very little evidence to inform metrics and appropriate benchmarks (Institute of Medicine, 2015). Given the limitations of the literature, the state of California has taken the lead in developing metrics, standards, and a methodology for collecting the needed data for monitoring timely access to care in California. The California Department of Managed Health Care (DMHC) has developed the Provider Appointment Availability Survey (PAAS), which health plans that offer products regulated by the department are required to implement. The PAAS methodology has changed over time to address issues with the data collection and reporting process, but the methodology is set to be finalized in January 2020. Health plans have faced numerous challenges in collecting and reporting this information. In this report we focus on two specific concerns with the methodology that have been raised by health plans and other stakeholders:

1. **The burden associated with the PAAS, particularly on providers.** There is concern that the survey places a higher burden on providers than is necessary because each health plan collects data individually. As a result, providers who contract with multiple health plans and work in multiple counties could be surveyed multiple times. This contributes to survey fatigue and likely increases the nonresponse rate for the survey, ultimately reducing the quality of the data available for consumers.
2. **A change in methodology between measurement year (MY) 2017 and MY 2018 that removed a question from the survey script and changed the way compliance is measured.** The methodology change between MY 2017 and MY 2018 removed a question in the survey about the availability of another provider. Prior to MY 2018, if the surveyed provider did not have an appointment available within the required time frame, a second question was asked about whether there was another provider in the office who had an appointment available sooner. The concern about removing this question is that the survey's focus on the availability of a specific provider does not reflect the way patients experience care and does not provide a comprehensive picture of the access that health plans offer. In the case of practices with multiple providers, when patients call for an appointment with a specific physician and he or she is not available within the patient's desired time frame, the practice scheduler will often be able to identify a different physician or advance practice clinician who can see the patient sooner. The removal of this question from the survey changes the measure of compliance to focus narrowly on a specific provider rather than the office as a whole, when the office provides a better representation of the actual access that a patient would experience.

We use a multipronged approach to describe and document each of these issues and identify and assess potential solutions. We conducted an environmental scan of timely access issues,

undertook discussions with stakeholders, and analyzed MY 2017 PAAS data for a subset of health plans.

Addressing Provider Burden

We identified and assessed seven options for reducing the burden associated with the timely access data collection and reporting:

1. **Centralized sampling with no other changes to the methodology.** In this option there is a single entity that collects the contact information and draws the sample for each health plan. The sampling entity identifies the overlap in providers across the samples and allocates providers to health plans for data collection, ensuring that each provider is only surveyed once. The data collected by health plans are provided to the sampling entity, and information about provider availability is shared with all relevant health plans. This option could also be implemented with centralized data collection to facilitate the data sharing process.
2. **Centralized sampling, with sampling strategy designed to leverage overlap between health plans.** This option extends the sampling methodology that is used within health plans to be used across health plans to take advantage of the overlap in doctors between plans and minimize the number of providers sampled. In this option, sampling would begin with the health plan that has the largest number of unique providers in its contact list. Once the initial sample is drawn, the sampling would proceed in order of size by health plan. The first step in drawing the sample for the second largest health plan would be to identify which providers from the initial sample are also contracted with the second health plan. These providers would automatically be included in the second health plan's sample. If additional providers are needed to reach the target sample size, providers would be randomly sampled from the second largest health plan's contact list to fill out their sample. This creates a running sample that includes providers from the largest and second largest health plans. The process then proceeds through all health plans.
3. **Sampling office locations rather than specific providers.** This option changes the sampling unit from providers to office locations. This would expand the way that the Federally Qualified Health Centers are treated in the sampling methodology to all office locations. It would also reflect the way that patients generally access care, through a provider office with potential access to any of the physicians and advance practice clinicians in that office. Applying this more broadly would require building a contact list at this more aggregated level and adjusting the survey question to ask about the next available appointment at that office location rather than with a specific provider.
4. **Improving contact data.** A large proportion of the providers contacted for participation in the survey are deemed ineligible. This is driven in large part by quality issues with the contact data. Investing time and resources up front to improve the quality of the contact data could reduce the burden of data collection by reducing the number of ineligible responses and thus the number of providers that must be called.

5. **Updating the target sample size to reflect ineligible.** This option reduces burden by reducing the number of providers that have to be surveyed. Under the methodology used for MY 2018, target sample sizes are determined based on the number of providers in the network/county combination in the contact list. The target sample size is static and does not adjust as the data collection progresses. For health plans with a high rate of ineligible, the target sample size is based on a count of providers in the network/county that is much larger than the actual number. As such, the target sample size is larger than is needed for the desired statistical precision, and it can be difficult for health plans with a high rate of ineligible to meet their target sample size. Adjusting the target sample size to better reflect the actual number of eligible providers in the network/county combination would reduce the number of calls that have to be made and thus the burden on providers.
6. **Making greater use of nonsurvey methods of data collection.** Legislation and the current methodology allow other ways to gather information about provider appointment availability. One option currently available is for the health plan to collect appointment availability data by querying appointment systems, but very few health plans report using this method due to technical difficulties. Advanced access models are noted in the legislation, requiring timely access data collection and reporting as a way to comply with the time-elapsing standards. However, this is not currently incorporated into the methodology. Making greater use of these nonsurvey methods would reduce the burden on providers.
7. **Improving communication and outreach to providers.** This option would reduce provider burden by reducing nonresponse. Some health plans with higher response rates attribute it to the outreach and education they do with providers about the importance of the survey. Because many providers and office locations are being surveyed multiple times under the current methodology, the likelihood of nonresponse may increase after the first plan surveys them. This could be due to fatigue or could be due to confusion on the part of the providers because they may not realize that they can be surveyed multiple times. Standardized directions and information provided by all health plans that makes clear the importance of the survey and the possibility that providers may be asked to provide information to multiple health plans could potentially help reduce nonresponse.

A high-level summary of our assessment of these options is provided in Table S.1. The high, medium, and low ratings on the effectiveness and ease of implementation are relative to the other options considered. For both effectiveness and ease of implementation a rating of high is best.

Table S.1. The Assessment of Options for Reducing Provider Burden Associated with the Provider Appointment Availability Survey

Option	Effectiveness Ease		Summary
Centralized sampling	High	Medium	Could reduce outreach attempts by 60% for primary care providers (PCPs) and by 72% for specialists. Implementation could build upon existing shared services model.
Centralized sampling and leveraging overlap	High	Low	Could reduce outreach attempts compared with MY 2018 methods by 60% for PCPs in Los Angeles County. Implementation would require development of statistical weighting to generate representative results. Based on method currently used within health plans.
Surveying office locations	High	Low	Could reduce outreach attempts by 70% for PCPs. There are implementation challenges with definitions and statistical weighting.
Improving contact list data	Medium	Medium	Expected to reduce number of ineligibles by approximately 50% and overall sample by 11%. Some challenges in implementation, but over time could take advantage of centralized provider directory.
Updating target sample size to reflect ineligibles	Low	High	Expected to reduce number of outreach attempts to reach target sample sizes. Easy to implement with lookup table included in PAAS instructions.
Making greater use of nonsurvey methods	High	Medium	Potential effect is large if there is a move to other modes of data collection and reporting. These changes could require significant investment in information technology and/or large changes to methodology.
Improving communication and outreach	Low	High	Providers may be more inclined to respond, but the effect is likely small. Implementation would be relatively easy, requiring development of standardized materials and outreach procedures.

We have identified and discussed a number of potential ways to reduce the burden of the PAAS methodology on providers. Each option has its strengths and weaknesses. In general, the options that we identified that have the greatest potential to reduce the burden of the survey—for example, centralized sampling designed to leverage overlap in providers between health plans, sampling at the office location level, and making greater use of nonsurvey methods of gathering compliance data—represent the largest deviations from the current methodology and thus make such options more challenging to implement. More work would need to be done to operationalize these strategies and put them into practice. For example, there are statistical considerations related to the representativeness of a sample that is drawn leveraging the overlap in providers across health plans; these issues are not insurmountable, but would need to be addressed. Similarly, there are issues around defining office locations and identifying them in the data that would need to be addressed before sampling at the office location level could be implemented.

At the same time, the options that would be the easiest to implement—for example, updating the way target sample sizes are calculated to account for ineligible response, or improving

education and outreach to providers—are expected to have beneficial impacts on burden, but the magnitude of those effects is small relative to other options.

Centralized sampling and improving contact data are the two options that fall in the middle in terms of both their effect on burden and their ease of implementation. The potential reduction in burden, while not as large as some other options, is still significant under both. In addition, the implementation challenges are a bit more modest because they do not require significant deviations from the current methodology and both are already underway to some extent. The centralized sampling approach is currently being employed by some health plans that use the same vendor and a shared services model. This model could be further extended to incorporate additional health plans. Similarly, the current efforts to build a centralized provider directory could be a key component of improved contact data (Integrated Healthcare Association, undated). Better information on providers, their practice locations, and networks in which they participate could be very helpful in reducing the number of ineligible respondents included in the original samples. Moreover, if fully implemented, the directory could support centralized sampling efforts by serving as the universe of providers from which to draw.

Providing Broader Measures of Timely Access

We identified and assessed four options for providing broader measures of timely access:

1. **Sampling office locations rather than specific providers.** In this option the sampling unit is changed from the provider to the office location. As described above, changing the sampling unit from the provider to office location, has the potential to reduce survey burden substantially. It also has the benefit of providing measures of appointment availability at the office location level, which more closely reflects the way that patients access care. When a patient calls requesting an appointment, if they cannot be seen within their desired time frame, the scheduler will generally offer an appointment with another provider if he or she has one available sooner.
2. **Incorporating the DMHC’s proposed binomial distribution calculation.** This option would incorporate calculations developed by the DMHC that translate the provider-specific compliance rate into the likelihood that a patient could find an appointment available within the time frame if they called three different providers in their network. This calculation provides additional information to beneficiaries about the access the health plan offers.
3. **Reporting more nuanced data on timely access.** Under this option, the DMHC would provide more information to consumers about the access that health plans offer. In addition to the compliance rate, the annual Timely Access Report could include other information currently available in the data collected such as the average number of days from request to appointment or the cumulative proportion of PCPs with appointments available by day. Other types of information could also be incorporated such as data from patient experience surveys or access-related complaints received by the DMHC. Providing more information would allow consumers to make more informed choices about which health plan to choose.

4. **Incorporating nurse practitioners (NPs) and physician’s assistants (PAs) into the sampling frame.** Incorporating NPs and PAs into the sampling frame in a comprehensive way would provide a better assessment of the access that a health plan offers. Currently, only those NPs and PAs that book appointments can be included in the health plan’s contact list for sample selection. However, in our discussions with health plans several noted that since they do not generally contract directly with NPs and PAs, they do not have the same type and level of information they do about the contracted physicians (e.g., National Provider Identifiers or licensure information). This makes incorporating them into the contact list difficult. In addition, there are physicians’ offices that make use of advance practice clinicians to expand capacity, but the NPs and PAs do not book appointments directly.

Our high-level assessment of each option is provided in Table S.2.

Table S.2. The Assessment of Options for Providing Broader Measures of Timely Access

Option	Effect	Ease	Summary
Surveying office locations	High	Low	Provides an office-level measure of access, reflecting the way patients access care. There are implementation challenges with definitions and statistical weighting.
Incorporating the DMHC’s binomial probability calculation	Low	High	Provides a way to translate compliance rates based on specific provider to something that might better reflect a patient’s ability to get a timely appointment within the network. It does not account for other types of access the health plan may offer, but would be easy to implement and report.
Reporting more nuanced access data	High	High	Providing additional metrics to assess timely access would give a more comprehensive picture to consumers. Implementation would be easier if the focus is on metrics derived from data that already exist. Some effort, however, may be needed to standardize that information.
Incorporating NPs and PAs into the sampling frame	Medium	Medium	Compliance estimates would include a key element of how health plans provide access that is now only partially captured. This could be difficult to implement, as health plans do not currently collect all of the information that would be needed in large part because they do not typically contract directly with NPs and PAs.

We assessed several options that could be implemented to provide a broader view of the access that health plans offer. Each one has its advantages and disadvantages. Surveying office locations rather than specific providers would generate a compliance rate at the office level, a measure that may better reflect how patients access care. Moving to office-level sampling, however, is a major departure from the current methodology and would require a significant effort to operationalize and put into practice. Providing more nuanced information about the access that health plans offer would be easier to implement, particularly if the approach focused on measures that can be derived from the data that are already collected (e.g., measures of the

distribution of days to appointment for the health plan's network). Expanding to new types of measures, such as ones derived from patient surveys, would take more time and effort to implement. However, the health plans already collect patient satisfaction data, so efforts to standardize and report that information have a good foundation on which to build. The binomial distribution calculation is primarily used to identify a compliance standard and does provide some additional information to consumers over and above the health plan's compliance rates. Incorporating NPs and PAs more directly into the sampling frame would generate a measure of timely access that more comprehensively reflects the ways in which the health plans offer access to care. Currently, health plans have less information about NPs and PAs in practices, and would need to gather this information to support their inclusion in the sampling frame.

Next Steps

Our analysis makes clear that the current timely access data collection and reporting methods are burdensome, and this has implications for data quality and costs for all stakeholders. Moreover, the narrow focus of the survey on specific providers and office-based appointments does not capture the full range of access options that health plans offer (e.g., telehealth visits, patient portals, and urgent care clinics). Something needs to be done to improve the process, to make it less burdensome and produce data that are more useful to consumers.

We have outlined a number of options, described their potential effects, and noted the trade-offs between them. The options outlined here are not necessarily mutually exclusive and could be combined in different ways to address the issues. There needs to be a collaborative stakeholder process that includes the DMHC, health plans, providers, and consumers to consider the options, weigh the pros and cons, and make decisions about how to move forward. The present analysis provides a strong foundation for this important policy discussion.

Acknowledgments

This project would not have been possible without the support and assistance of many people. We are very grateful to our project officers at the California Association of Health Plans, Stephanie Shirkey and Christina Wu, who provided important input and coordinated discussions with representatives from member health plans. We also want to thank all of the health plan representatives and Department of Managed Health Care staff members who talked with us and shared their perspectives on the timely access data collection and reporting process. Their input was critical to our understanding of the issues and our ability to identify potential solutions. We also appreciate and acknowledge the health plans for sharing their survey data with us and reviewing our analysis of the data. We thank Joan Chang for her research assistance. Finally, we would like to thank our quality assurance reviewers, William Barcellona (senior vice president of government affairs for America's Physician Groups) and Maria DeYoreo (statistician at the RAND Corporation); their thoughtful and constructive comments significantly improved the report. Any remaining errors are the sole responsibility of the authors.

Abbreviations

DMHC	California Department of Managed Health Care
MY	measurement year
NP	nurse practitioner
PA	physician's assistant
PAAS	Provider Appointment Availability Survey
PCP	primary care provider

1. Introduction

Background

Access to high-quality care is a critical component of a high-performing health care system. Improving access to care for patients supports multiple aspects of the Institute for Healthcare Improvement's Triple Aim to improve health care system performance by improving patients' experience of and satisfaction with care and improving health outcomes (Institute of Medicine, 2015).¹ Access has been broadly defined as the fit between an individual and the health care system (Fortney et al., 2011; Pechansky and Thomas, 1981). In other words, a person's access to care depends on how well the health care system meets his or her needs. The quality of that match can be affected by a wide range of factors, including overall provider supply and demand conditions, characteristics of the system (e.g., provider appointment availability), the characteristics of the individual (e.g., insurance status or income), and the characteristics of his or her health insurance plan.

This broad concept of access can be further broken down into more specific aspects of fit between the individual and the health care delivery system. The key components of access (Fortney et al., 2011) include

- **geography:** the ease of traveling to health care providers
- **temporality:** the ability to obtain care and get it promptly
- **finance:** the affordability of care
- **digital access:** the connectivity that enables digital communications with providers (e.g., access to test results, and the ability to get questions answered via email)
- **culture:** the acceptability of care.

The various aspects of access have received significant attention from policymakers in recent years. Improving financial access, through the provision of health insurance, has been a key component of the arguments in favor of the Affordable Care Act and more recently the "Medicare for all" policy proposals. Media reports about problems with the timeliness of care within the Veterans Health Administration have sparked controversy and lead to new policies aimed at improving access for veterans through reducing wait times and improving geographic access to care (Institute of Medicine, 2015). Other policy efforts, such as the development of the National Standards for Culturally and Linguistically Appropriate Services, have focused on

¹ The goals of the Triple Aim for improving health system performance are (1) to improve patients' experience of care, (2) to improve the health of populations, and (3) to reduce the per capita cost of care. For more information, see Institute for Healthcare Improvement, undated-a.

improving cultural access to health care (U.S. Department of Health and Human Services, Office of Minority Health, undated).

In this report we focus on the temporal aspect of access and how it is measured and monitored for health plans in California. While there has been interest and attention paid to the timeliness of care, there is not a great deal of research supporting metrics for assessing timeliness or evidence-based benchmarks and standards (Institute of Medicine, 2015).

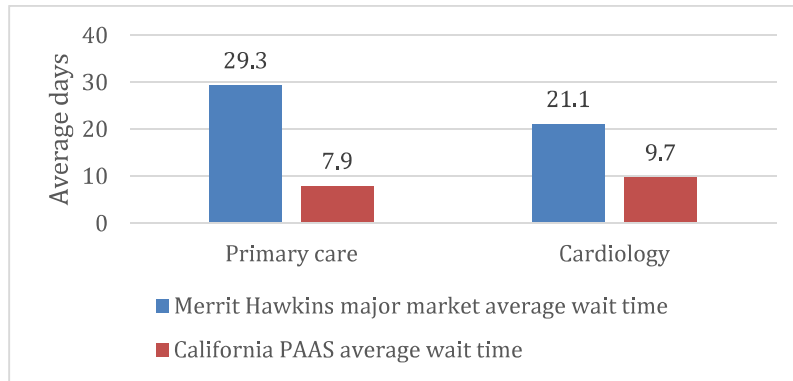
Two main types of data on timely access are typically collected: provider-based data and patient-based data. The provider-based data typically measures wait times for appointments with different types of doctors (e.g., primary care provider or specialist), for different types of care (e.g., urgent and nonurgent) and for different types of patients (e.g., new patient versus established patient). There is no standard method for measuring wait times, and this is reflected in the data, with a variety of measures being used. The Veterans Health Administration measures wait time as the number of days past the patient's preferred appointment date. The California Department of Managed Care (DMHC) requires health plans to measure time to the next available appointment. Other organizations have suggested looking at the time to the third next available appointment, arguing that the third next available appointment is a better measure of actual capacity than next available appointment because it is less sensitive to short-term spikes in availability due to cancellations (Institute for Healthcare Improvement, undated-b). Regardless of how it is measured, the data show substantial variability within and across jurisdictions in the wait times for appointments with different types of doctors. For example, a study by Merritt Hawkins (2017) used a secret shopper methodology to gather data on wait times for the next available nonurgent appointment for a new patient with different types of specialties.² The study collected data in 15 large and 15 midsize metropolitan areas, and found that wait times on average were 33 percent longer in midsize communities relative to the larger metropolitan areas. The study also saw variation between specialties, including those that are considered primary care. For example, across all communities the average wait time was 21 days for a cardiology appointment, 29.3 days for a family medicine appointment, and 32.3 days for a dermatology appointment. Within each specialty there was variation across communities. The shortest average wait time for family medicine was eight days, in Minneapolis, and the longest was 109 days in Boston (Merritt Hawkins, 2017). By comparison, in California, data from the Provider Appointment Availability Survey (PAAS) indicate that the average wait time is 7.9 days for a nonurgent primary care appointment and 9.7 days for a nonurgent cardiology appointment.³ While not exactly comparable because of different survey methods and questions, the average

² A secret shopper method involves data collectors calling physicians' offices and pretending to be patients seeking appointments. The physicians' offices are not told that this is part of a data collection exercise.

³ These estimates are generated by RAND's analysis of PAAS data provided by 12 health plans for use in this study.

wait times in California, shown in Figure 1.1, appear to be shorter than the average across the sample of cities included in the Merritt Hawkins survey.

Figure 1.1. Comparison of Average Wait Times for Nonurgent Appointments, 2017



SOURCE: RAND analysis of measurement year (MY) 2017 PAAS raw data files provided by participating health plans; and Merritt Hawkins (2017).

NOTE: Primary care in the Merritt Hawkins survey is limited to family medicine; the PAAS data from California include other specialties generally included as primary care (e.g., internal medicine and pediatricians). The Merritt Hawkins survey asked about an appointment for a new patient; the PAAS does not specify whether the appointment is for a new or established patient.

The patient-based data typically comes from surveys of patient experience that provide a subjective perspective on whether the patient received care when they needed it. Based on data from the Consumer Assessment of Healthcare Providers and Systems Clinician and Group Survey, 68 percent of patients reported always getting an urgent care appointment as soon as one was needed; the proportion rises to 73 percent for routine, nonurgent care (Agency for Healthcare Research and Quality, 2018). These data also show variation in timely access between specialties and between geographic areas.

As noted above, there is no national standard for measuring timeliness of care, nor is there an accepted benchmark for what is an acceptable wait time (Institute of Medicine, 2015). Given this dearth in the literature, some organizations and states have developed their own metrics and benchmarks for performance. The state of California is among these leaders. In California the DMHC regulates health plans under the provisions of the 1975 Knox-Keene Act to protect consumers' health care rights and ensure a stable health care delivery system (DMHC, 2018d). Under Knox-Keene, health plans are required to "make all services readily available at reasonable times to each enrollee consistent with good professional practice" (Matthew Bender & Company, 2019, sec. 1367, p. 217). The Timely Access Regulations were developed to operationalize this requirement. These regulations, which went into effect in 2010, require that

health plan networks meet a set of standards, including specified wait times for appointments and availability of telephone services to address patient needs during and after business hours (DMHC, 2018d). Health plans are required to submit compliance reports annually. These annual compliance reports include two primary categories of information: the health plan’s provider roster as of December 31 of the prior year, and the data collected on appointment wait times. The roster data are used to assess the adequacy of the network and gauge geographic access to care. The data on wait times are used to assess compliance with the wait time standards.

The time-elapsed standards for appointment wait times in California are described in Table 1.1. The standards vary by type of appointment (urgent or nonurgent) and type of provider (primary care physician, specialist, etc.).

Table 1.1. Time-Elapsed Appointment Wait Time Standards in California

Appointment Type	Time Frame
Urgent Care (Prior authorization not required by health plan)	48 hours
Urgent Care (prior authorization required by health plan)	96 hours
Non-Urgent Doctor Appointment (primary care physician)	10 business days
Non-Urgent Doctor Appointment (specialty physician)	15 business days
Non-Urgent Mental Health Appointment (non-physician ¹)	10 business days
Non-Urgent Appointment (ancillary provider ²)	15 business days

¹ Examples of non-physician mental health providers include counseling professionals, substance abuse professionals and qualified autism service providers.

² Examples of non-urgent appointment for ancillary services include lab work or diagnostic testing, such as mammogram or MRI, and treatment of an illness or injury such as physical therapy.

SOURCE: DMHC, 2018d, p. 3.

In the first few years that the Timely Access Regulations were in effect, health plans were allowed to choose the methods of data collection they would use to measure wait times and demonstrate compliance with the time-elapsed standards. Because the health plans were using different methods, the data were not comparable across health plans. In 2014, Senate Bill 964 was passed, giving the DMHC the authority to require standardized methods of collecting and reporting these data (Senate Bill 964, 2014). The DMHC developed standardized methods that rely on provider-based data. The methods have evolved over time as the DMHC incorporated feedback from the health plans and other stakeholders.

Overview of MY 2018 Provider Appointment Availability Survey Methods

Under the MY 2018 PAAS methodology, each health plan subject to the regulations is required to collect data on appointment availability among the doctors or clinicians in its networks. The health plans do so using the methods outlined by the DMHC to survey different

types of providers (e.g., primary care physicians, specialists, and nonphysician mental health care providers) for different types of appointments (urgent and nonurgent).⁴ The goal of the data collection effort is to assess compliance with the timely access standards outlined in Table 1.1. The data are collected annually and reflect appointment availability during the measurement, or calendar, year. The three primary components to the health plan's data collection and analysis efforts include selecting the sample, collecting the data, and analyzing and reporting the results.

Selecting the Sample

The first step is to develop a contact list of all providers across the various networks from which to select a sample to survey. Separate contact lists are developed for each physician type. The contact lists contain information on each provider and the networks that he or she participates in, and the practice's office location. The methodology in MY 2018 requires that the health plans sample providers within each combination of network and county. The health plan removes duplicate entries in the contact list within each network/county combination. After deduplication, the number of providers in each network/county group is calculated and the health plan uses the methods outlined by the DMHC to determine the target sample size and an oversample for that group.⁵ When the health plan has only one network in a county, the sample for the network/county group is drawn using simple random sampling. When the health plan has multiple networks serving a county, the sampling strategy outlined by the DMHC is designed to minimize the number of providers that need to be sampled to get results for all networks in that county. This is accomplished through a sequential process starting with the largest of the networks in the county and then taking advantage of the overlap in providers between the health plan's networks in that particular county.

Collecting the Data

Once the sample and oversample have been selected, each individual health plan begins its data collection efforts. The data can be collected through a survey process or through a manual or electronic extraction from practice management systems (i.e., audit methodology). The vast majority of health plans use the survey methodology in which the respondent can be the provider, but the respondent is most often the person in the office who is in charge of scheduling appointments. The audit methodology is used less because most health plans do not have easy access to the provider's practice management systems. Since its inception, the PAAS has primarily been a telephone-based survey. However, for MY 2018, the methodology introduced a

⁴ The data collection and reporting requirements and methodology are available in DMHC, undated-b.

⁵ The target sample sizes are determined by the number of providers in the network/county group and whether the network serves multiple counties. The target sample sizes are described in detail in DMHC, 2018b, Appendixes 2 and 3. The oversample is drawn as a pool of substitutes that can be incorporated into the sample if members of the original sample are deemed ineligible for the survey or do not respond.

three-step protocol for survey data collection. The first step is to contact the provider by fax or email; the provider or scheduler can then respond to the survey at a convenient time. If no response is received within two business days, a reminder is sent. If the provider does not respond within five business days, a follow-up call is made to gather the information.

The survey begins by gathering information to verify that the provider is eligible to participate. The data collector verifies that the provider participates in the network, practices in the corresponding county, and matches the type of provider that is needed for the survey. If eligibility is verified, the survey then asks about the next available urgent and nonurgent appointments with that provider. If the provider is determined ineligible, the survey does not proceed. The health plan then replaces the ineligible provider in the list of providers to be surveyed with a provider from the oversample in order to meet required target sample size. Nonresponders are also replaced with providers from the oversample. Data collection proceeds until the required target sample size has been reached or all providers in the network/county group have been added to the sample and the supply has been exhausted.

Analyzing and Reporting the Data

The health plans are required to report compliance rates with the time-elapsed standards, the percent of ineligible respondents, and the percent of nonresponders for each network/county group. The compliance rate is defined as the proportion of eligible survey respondents who had an appointment available within the time-elapsed standard. Compliance is calculated for each provider type and for urgent and nonurgent appointments.

The DMHC compiles the information across health plans and incorporates it into the annual Timely Access Report. These annual reports have been developed since MY 2015 and are available on the DMHC's website. For the most recent year available, MY 2017, the report presents the information at the health plan level for each provider and appointment type. In MY 2017, the DMHC also provided data at the provider group level in a spreadsheet that can be downloaded from its website (DMHC, 2018c).

Issues and Challenges with the Methodology

There are a number of issues and challenges associated with the PAAS methodology. The methodology has evolved over time as the DMHC has incorporated feedback from stakeholders and worked to make improvements. The changes from year to year are necessary, as the DMHC wants the process to be as accurate as possible as it moves toward final regulations, but the changes also make the implementation of the survey challenging for the health plans and the interpretation of the data to date more difficult. In particular, the data are not comparable from year to year thus far, making it impossible to track trends and difficult to determine thresholds that represent adequate compliance at the plan level.

More generally, the PAAS captures a somewhat narrow aspect of timely access for patients. It focuses specifically on whether appointment wait times are within the time-elapsed standards, but it does not include any patient preferences or perspectives on whether they are able to get care when they need it. In addition, the method focuses on traditional office-based providers that book appointments. As such, it does not take full account of advance practice clinicians, such as nurse practitioners (NPs) and physician's assistants (PAs), who contribute to increased patient access. Similarly, the PAAS does not include practice settings that do not book appointments, such as walk-in clinics and urgent care centers, but do provide options for accessing care when a patient needs it. Telehealth, telephonic options, and patient portals are other means supported by health plans to provide access to timely care that are not currently accounted for in the PAAS methodology.

A challenge for the DMHC in developing the methodology is to find a balance between statistical rigor and the feasibility of implementation at the health plan level. Each health plan is responsible for collecting its own data, so the method has to be independent but equivalent across health plans and simple enough to be feasible to implement. If the sampling, data collection, or preparation of results is too complicated, mistakes and inconsistencies will be more common and the data more difficult to interpret. For example, the methodology does not require health plans to weight the compliance estimates to account for nonresponse. Typically, weighting is needed to generate representative results because nonresponse does not necessarily occur randomly. If nonresponse is more likely among certain types of providers and those providers are more or less likely to have a compliant appointment, then unweighted results will be biased. Nonresponse is a concern for the PAAS. In fact, the independence of the methodology across health plans is a contributing factor; it generates additional survey burden because providers that contract with multiple health plans may be asked to complete the PAAS survey multiple times. Nonresponse tends to increase if respondents are surveyed multiple times (Brtnikova et al., 2018; Porter et al., 2004). If the process were more centralized, this type of duplication could be avoided, and nonresponse could decrease.

The current methods for collecting and reporting the timely access data are costly to all involved. The health plans pay for the data collection and reporting process; this takes time and resources away from other activities that may be more beneficial to patients. Moreover, the cost of the survey is ultimately borne in part by consumers in the form of higher premiums. Certainly some investment is needed to monitor and ensure timely access, but the current methods could be streamlined in ways that both improve the quality of the data collected (e.g., increase survey response rates) and reduce the time and resources involved for health plans and providers.

The Objective of This Report

The DMHC is working toward a January 2020 deadline for the development of final regulations regarding the methodology for timely access data collection and reporting in

California. To provide input into this effort, the California Association of Health Plans engaged the RAND Corporation to document and analyze issues and potential methodological modifications related to two concerns that the health plans and other stakeholders have with the current methodology. Specifically, this report focuses on two key factors:

1. **The burden associated with the PAAS, particularly on providers.** There is concern that the survey places a higher burden on providers than is necessary because each health plan collects data individually. If a provider contracts with multiple health plans and works in multiple counties it could be surveyed multiple times. This contributes to survey fatigue and likely increases the nonresponse rate for the survey, ultimately reducing the quality of the data available for consumers.
2. **A change in methodology between MY 2017 and MY 2018 that removed a question from the survey script and changed the way compliance is measured.** The methodology change between MY 2017 and MY 2018 removed a question in the survey about the availability of another provider. Prior to MY 2018, if the surveyed provider did not have an appointment available within the required time frame, a second question was asked about whether there was another provider in the office who had an appointment available sooner. The concern with the removal of this question is that the survey's narrow focus on the availability of a specific provider does not reflect the way that patients experience care and does not provide a comprehensive picture of the access that health plans provide. In the case of practices with multiple providers, when patients call for an appointment with a specific physician and he or she is not available within the patient's desired time frame, the scheduler will often be able to identify a different physician or advance practice clinician who can see the patient sooner. The removal of this question from the survey changes the measure of compliance to focus narrowly on a specific provider rather than the office as a whole, when it is the office that provides a better representation of the actual access a patient would experience.

Approach

Multiple methods were employed to gather information and analyze these issues. We conducted an environmental scan of issues related to measuring timely access to care. The scan included both peer-reviewed and gray literature. We also gathered information from the DMHC's website describing the PAAS methodology over multiple years, the annual Timely Access Reports, and other relevant documentation. We met with representatives from each health plan that participated in the study. The California Association of Health Plans enlisted support from member health plans to fund the project, and 15 plans opted to participate. The purpose of the discussions with health plan representatives was to gather information on the issues and challenges they face in collecting and reporting the PAAS data. We also spoke with representatives of several data collection vendors used by the health plans to collect the PAAS data and representatives of provider groups to get their input on timely access data collection and reporting. In addition, we spoke with officials at the DMHC to get their perspective on the two primary issues the health plans raised. Finally, we obtained MY 2017 PAAS data from 12 of the

participating health plans.⁶ We analyzed these data to describe the issues and, where possible, the potential impacts of various options for addressing them.

In the subsequent chapters we provide a description and analysis of each issue and offer a range of potential alternative approaches that might be considered to reduce respondent burden and to provide a broader measure of access.

⁶ These data include information on all providers contacted. It includes contact information (e.g., name and address), information on the outcome of the outreach attempt (i.e., ineligible, nonresponse, or completed survey), and information on appointment availability for providers that completed the survey. More detailed information on the data collected is available in DMHC, undated-b.

2. The Timely Access Data Collection and Reporting Burden

Complying with the timely access reporting requirements in California requires a substantial effort by health plans, providers, and the DMHC. In this chapter we describe the burden, the factors that contribute to it, the implications of the burden for data quality, and a number of potential actions that could be taken to reduce the overall burden of the data collection and reporting effort.

What Is the Burden?

We describe the burden of the data collection and reporting efforts on health plans and the DMHC briefly, but focus primarily on the burden borne by providers because it is substantial and has a clear impact on the quality and usefulness of the data collected.

Health Plans

The data collection and reporting process takes place throughout the year and requires substantial inputs of time and resources from the health plans. The universe of doctors in a health plan's networks is set at the beginning of the year, the sample is drawn using the methodology outlined by the DMHC in the spring, and data collection generally begins in late spring and continues through the fall as health plans work to meet the required target sample sizes. The data are then analyzed and put into the appropriate templates for submission to the DMHC in March of the following year. Health plans reported that at some points during the year they could be working on up to three different years of data collection and reporting. For example, in January 2019 they might be dealing with lingering questions from the DMHC regarding data submitted for MY 2017, finishing up the analysis and validation of data collected for MY 2018, and reviewing new requirements and planning for implementation of MY 2019 data collection.

Working on multiple years of timely access reporting simultaneously is challenging for the health plans, and the DMHC has adjusted the methodology over time to address issues and problems with data quality and the burden of data collection. These changes, which in many cases will be beneficial in the long run, are difficult for the health plans in the short term because they require new processes to be developed each year. The changes also render the data collected noncomparable from one year to the next, so it is impossible for the health plans or the DMHC to gauge whether rates of compliance are getting better or worse. The changes are expected to be reduced over time, as the DMHC is required to develop regulations that would finalize the methodology by January 2020.

The PAAS data collection and reporting occurs in the context of the other reporting requirements that health plans face. In addition to the PAAS data, health plans are required by

the DMHC to conduct provider and patient satisfaction surveys each year. They are also required to submit Annual Provider Network Report information that the DMHC uses to assess network adequacy.

The DMHC

As noted above, the timely access data collection and reporting process has evolved over time as the DMHC has worked to address stakeholder feedback and improve the quality and interpretability of the data. Year-to-year changes create additional work for the DMHC in terms of developing and operationalizing the new methods and in compiling, analyzing, interpreting, and reporting the data. After problems with the MY 2015 data that health plans reported, the DMHC has paid particular attention to data quality and invests significant efforts in checking what is submitted by health plans (DMHC, 2017a).

Over time, as the methods are finalized and are not changing from year to year, the data quality and reporting would better conform to expectations and the effort required to understand and interpret the data should be reduced. In addition, the effort required to develop and communicate the methods to stakeholders is expected to be reduced.

Providers

Physicians and their office staff face a significant burden under the current methods for timely access data collection. Under the current survey methodology, each health plan is required to select a sample of doctors from its networks to survey each year. This decentralized sampling and data collection tends to increase the burden placed on physicians because it does not account for any overlap in the contracted doctors between health plans' networks. Most physicians contract with multiple health plans and, as a result, have the potential to be sampled and surveyed multiple times each measurement year. In fact, given the way the samples are drawn, they may be sampled and potentially surveyed multiple times, with varying results from any single health plan if they are included in several of the health plan's networks, are in multiple provider groups, or have practice locations in multiple counties. Being surveyed multiple times is costly to providers because it takes time away from other important activities within the practice. Each survey is estimated to take approximately five minutes.

In Table 2.1 we see that for MY 2017 the average number of times a primary care provider (PCP) was included in the sample is greater than one for all of the health plans in our data set except for health plan G. There are also some extreme cases where a single PCP is observed in one health plan's data as many as 102 times. For specialists, the average number of times a doctor appears in a health plan's data is above one in all health plans, and in several cases the maximum number of times is over 30 (see Table 2.2). The issue is more acute for the larger health plans that have multiple networks and cover multiple counties. For example, in one of the larger health plans that we looked at, health plan B, each unique doctor was observed on average

almost four times in the data, with a minimum of two, meaning each doctor in that health plan was observed in the sample at least twice.

Table 2.1. Number of Times a Unique PCP Is Sampled, MY 2017

Health Plan	Mean	Minimum	Median	Maximum
A	1.47	1	1	13
B	3.93	2	2	102
C	1.55	1	1	14
D	1.41	1	1	17
E	2.29	1	2	28
F	1.22	1	1	2
G	1.00	1	1	1
H	1.01	1	1	2
I	1.39	1	1	4
J	1.01	1	1	3
K	1.64	1	1	19
L	1.00	1	1	2
Across all health plans	4.96	1	3	164

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

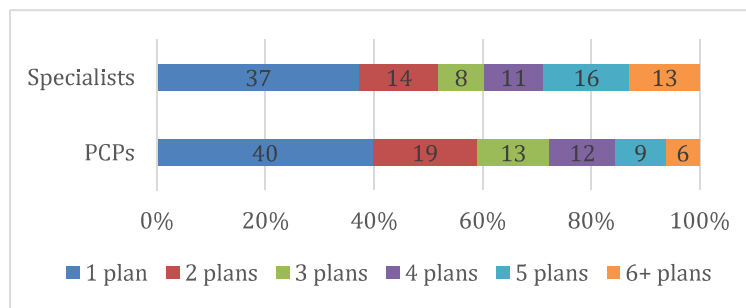
When a physician is sampled multiple times within a health plan, the health plan is able to reduce the burden by surveying the physician once and applying the result to each provider group the physician belongs to in that county. However, without a more centralized process, many physicians will be surveyed by multiple health plans in a given year. Looking across all of the health plans in our data set, we find that the average number of times each physician shows up in the overall sample increases to nearly five times for PCPs and almost seven times for specialists (see Tables 2.1 and 2.2). The number of health plans in which we observe each unique provider also provides a sense of the burden on providers caused by this decentralized process, where each health plan collects its own data. We find that over 50 percent of PCPs and specialists are observed in more than one health plan and over 25 percent are in four or more health plans (see Figure 2.1).

Table 2.2. Number of Times a Unique Specialist Is Sampled, MY 2017

Health Plan	Mean	Minimum	Median	Maximum
A	2.01	1	1	28
B	2.37	1	2	66
C	2.30	1	2	30
D	1.98	1	1	38
E	2.83	1	2	53
F	2.01	1	1	11
G	1.07	1	1	2
H	1.01	1	1	2
I	1.51	1	1	6
J	1.12	1	1	3
K	2.33	1	2	28
L	1.06	1	1	2
Across all health plans	6.96	1	4	159

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

Figure 2.1. The Proportion of PCPs and Specialists Observed in Multiple Health Plans, MY 2017



SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

The problem becomes even more acute when considering the burden at the physician’s office level. If the office houses multiple doctors who share a common receptionist or scheduler, the number of times the office is surveyed increases substantially. Some health plans reported that in extreme cases the data collectors may be contacting the same telephone number as many as 50 to 100 times. If each survey takes approximately five minutes to complete, that means some offices are being asked to spend four to eight hours responding to the survey. To provide a sense of the burden at the office level, we estimated the number of times a specific office location was

observed in the sample.¹ As expected, the results in Tables 2.3 and 2.4 indicate that, on average, office locations are replicated in the sample more often than individual providers are. While the average and median number of times the same office location is sampled is still relatively low, there are cases for both PCPs and specialists where the number of times an office location is observed exceeds 100 within a single health plan and significantly more than that when taking into account all health plans.

Table 2.3. Number of Times a PCP Office Location Is Sampled, MY 2017

Health Plan	Mean	Minimum	Median	Maximum
A	2.45	1	1	37
B	6.04	2	4	188
C	3.36	1	2	108
D	3.27	1	2	89
E	6.72	1	3	327
F	2.09	1	2	14
G	1.98	1	1	27
H	2.84	1	2	55
I	3.98	1	3	16
J	2.94	1	1	27
K	4.24	1	2	82
L	2.44	1	1	22
Across all health plans	6.41	1	3	391

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

What Are the Drivers of Provider Burden?

There are a number of factors that increase the burden of the PAAS on providers. As described above, the current decentralized sample selection and data collection process is a key

¹ We identify office locations based on the address information included in the survey data. There are challenges with using address because the same address may be listed in different ways both within and across plans. If the same address is listed two ways, it will be counted as two different locations, and this would reduce our estimate of the number of times an office location is observed in the sample. At the same time, it is possible that key components of an address, such as suite number, might be missing and thus two distinct offices within the same building could be counted as the same office; this type of error would inflate our estimate of the number of times that office location is observed in the sample.

driver of the burden on providers because it does not account for the overlap across health plans for the providers with whom they contract.

Table 2.4. Number of Times a Specialist Office Location Is Sampled, MY 2017

Health Plan	Mean	Minimum	Median	Maximum
A	2.35	1	1	30
B	3.95	1	2	116
C	4.63	1	2	134
D	4.58	1	2	114
E	5.88	1	2	195
F	3.12	1	2	26
G	2.61	1	1	13
H	2.82	1	1	38
I	6.95	1	2	201
J	3.79	1	2	25
K	5.56	1	2	154
L	3.01	1	2	22
Across all health plans	6.40	1	2	406

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

The sampling strategy is another factor that increases the repetition within health plans. The MY 2018 methodology improved upon prior years in this regard by changing the approach from sampling within provider group/county combinations to sampling within network/county combinations. Many physicians contract with multiple provider groups and health plans, and prior methodology required health plans to sample within provider group/county combinations, so a physician in multiple provider groups could be sampled many times, as we saw in Tables 2.1 and 2.2. If the number of networks that a physician participates in is lower than the number of provider groups, the MY 2018 methodology would reduce the number of times the physician could be sampled within the same health plan.

Issues with the quality of the data in the contact list also create additional burdens on providers. At the outset of the measurement year, health plans create a contact list for each survey type (e.g., PCPs, specialists, etc.) that includes all providers they contract with and information about which networks providers belong to, what provider groups they are in, what counties they practice in, and their telephone numbers. The contact list is deduplicated within the sampling strata (provider group and county in MY 2017, network and county in MY 2018) and the sampling methodology is applied. When data collectors contact providers for a particular

sample (e.g., provider group/county), the first step is to screen the provider to determine that he or she is indeed in the health plan, provider group, and county that the collectors are targeting. If the provider is not in one of those categories or has ceased practicing, they are determined to be ineligible for the survey. The contact data are very detailed and as a result can contain inconsistencies which lead to some misclassifications and high rates of ineligibility. This is problematic, as it increases the total number of providers who receive telephone calls about the survey because each ineligible provider must be replaced with another provider from the oversample in order for the health plans to reach their target sample size. In Tables 2.5 and 2.6, we see that in MY 2017 as much as 30 percent of the providers that some health plans contacted were ineligible for the survey. The reasons for ineligibility are mixed, and they vary some across health plans. For example, the predominant reason for ineligibility among PCPs in health plan E is that the provider is not in the provider group or county that the data collector is asking about (52.9 percent of all ineligibles). For health plan A, however, the largest proportion of ineligible PCP responses is due to incorrect telephone numbers (42.7 percent). The patterns across health plans are similar between PCPs (see Table 2.5) and specialists (see Table 2.6). Looking across all health plans, the three primary reasons for ineligibility are the provider not being in the group or county, an incorrect telephone number, or that the location does not accept appointments (e.g., it is an urgent care center or walk-in clinic).

Table 2.5. Analysis of Ineligibility Among PCPs, MY 2017

Health Plan	Percent Ineligible	Reason for Ineligibility						
		No Appointments at This Location	Incorrect Phone Number	Provider or Group Not in Network	Provider or Group Ceased Practice	Incorrect Specialty	Provider Not in Group or County	Other
A	31.1%	0.0%	36.0%	0.0%	33.2%	5.2%	25.6%	0.0%
B	31.8%	15.0%	28.1%	1.2%	4.3%	1.0%	50.3%	0.0%
C	17.3%	21.5%	18.2%	1.7%	6.9%	1.2%	50.4%	0.0%
D	24.2%	13.0%	25.2%	1.5%	6.2%	0.9%	53.2%	0.0%
E	18.8%	17.0%	18.7%	2.8%	5.9%	3.5%	52.1%	0.0%
F	6.0%	95.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%
G	27.1%	60.9%	0.0%	8.7%	30.4%	0.0%	0.0%	0.0%
H	29.5%	16.2%	58.3%	7.4%	11.0%	1.6%	1.6%	3.9%
I	1.2%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
J	5.3%	0.0%	47.9%	0.0%	52.1%	0.0%	0.0%	0.0%
K	18.3%	13.1%	22.3%	2.1%	9.4%	1.3%	51.7%	0.0%
L	14.1%	15.3%	10.6%	5.9%	11.8%	3.5%	52.9%	0.0%
Across all health plans	23.5%	14.1%	25.5%	1.7%	8.7%	1.9%	47.9%	0.0%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

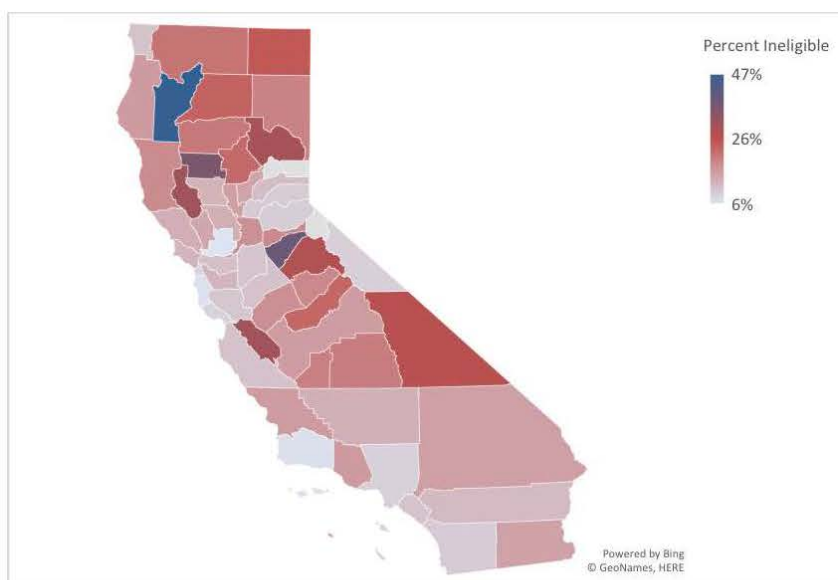
Table 2.6. Analysis of Ineligibility Among Specialists, MY 2017

Health Plan	Percent Ineligible	Reason for Ineligibility						
		No Appointments at This Location	Incorrect Phone Number	Provider or Group Not in Network	Provider or Group Ceased Practice	Incorrect Specialty	Provider Not in Group or County	Other
A	37.9%	0.0%	42.7%	0.0%	29.6%	4.5%	23.2%	0.0%
B	24.5%	18.9%	23.9%	1.6%	4.6%	0.8%	50.2%	0.0%
C	16.1%	18.7%	20.6%	3.1%	6.2%	1.1%	50.2%	0.0%
D	21.7%	15.3%	25.0%	2.2%	8.0%	1.0%	48.5%	0.0%
E	22.2%	11.0%	22.0%	3.1%	6.2%	4.9%	52.9%	0.0%
F	6.4%	57.1%	39.3%	3.6%	0.0%	0.0%	0.0%	0.0%
G	30.1%	86.4%	0.0%	4.5%	9.1%	0.0%	0.0%	0.0%
H	18.8%	11.0%	45.1%	16.5%	14.3%	6.6%	3.3%	3.3%
I	20.7%	0.0%	37.9%	4.1%	55.2%	2.8%	0.0%	0.0%
J	8.2%	0.0%	53.3%	0.0%	46.7%	0.0%	0.0%	0.0%
K	22.3%	15.2%	25.0%	1.4%	9.9%	0.4%	48.0%	0.0%
L	8.4%	15.8%	5.3%	0.0%	15.8%	0.0%	63.2%	0.0%
Across all health plans	21.9%	14.6%	25.0%	2.2%	8.8%	2.0%	47.2%	0.0%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

One possible explanation for the high rate of ineligibility due to incorrect provider group or county could be that in the larger metropolitan areas around Los Angeles and San Francisco, where there are multiple counties, it is possible that respondents are unfamiliar with exactly which county the physician’s office is located. Several health plan representatives that we talked with noted this as a problem. To assess this possibility, we mapped the rate of ineligibility due to incorrect provider group or county across counties in California to see if there was a geographic pattern in this factor (see Figure 2.2). We actually tend to see lower rates of ineligibility in the counties around Los Angeles and San Francisco than in other parts of the state. This could indicate that the problem is driven by issues with the underlying contact data or respondents not knowing which provider groups they participate in.

Figure 2.2. The Percentage of Providers Contacted That Were Ineligible Due to Incorrect Provider Group or County, by County, MY 2017



SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

More generally, it would be useful to have a better understanding of the drivers of the variation across health plans in the rate of ineligibility. There may be promising practices used by those health plans with low rates of ineligibility that could be adopted by other health plans to address this problem.

What Is the Impact of the Burden on Providers?

Surveying doctors multiple times promotes a growing sense of survey fatigue among providers. This is not just the result of the PAAS, as providers are asked to respond to a number of different surveys over the course of the year from health plans and other groups. Studies have shown that survey fatigue and repeated requests for survey participation reduce response rates (Brtnikova et al., 2018; Porter et al., 2004). Surveying providers multiple times therefore likely contributes to higher rates of nonresponse among providers on the PAAS. It also likely spills over to other data collection activities focused on physicians. In MY 2017, among the health plans included in the study, we found an overall nonresponse rate of 23.2 percent among PCPs (see Table 2.7) and 32.5 percent among specialists (see Table 2.8). However, there is wide variation in nonresponse rates across health plans, with the rate among PCPs ranging from 3.2 percent to 44.2 percent; nonresponse is higher among specialists, with the rate ranging from 24.6 percent to 77.7 percent. As noted above, on average specialists are more likely to be sampled multiple times and this may contribute to their higher rate of nonresponse.

Table 2.7. Analysis of Nonresponse Among PCPs, MY 2017

Health Plan	Type of Nonresponse		
	Nonresponse Rate	No Response Within 48 Hours	Declined to Respond
A	44.2%	80.9%	19.1%
B	24.4%	55.1%	44.9%
C	16.1%	63.5%	36.5%
D	22.0%	57.4%	42.6%
E	23.5%	91.0%	9.0%
F	24.0%	100.0%	0.0%
G	3.2%	100.0%	0.0%
H	31.8%	93.6%	6.4%
I	13.0%	90.9%	9.1%
J	43.2%	100.0%	0.0%
K	16.7%	62.9%	37.1%
L	38.2%	30.8%	69.2%
Across all health plans	23.2%	70.5%	29.5%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

Table 2.8. Analysis of Nonresponse Among Specialists, MY 2017

Health Plan	Type of Nonresponse		
	Nonresponse Rate	No Response Within 48 Hours	Declined to Respond
A	71.3%	76.3%	23.7%
B	31.6%	52.6%	47.4%
C	24.6%	50.6%	49.4%
D	26.5%	52.3%	47.7%
E	36.8%	91.2%	8.8%
F	39.1%	100.0%	0.0%
G	31.4%	100.0%	0.0%
H	44.6%	99.4%	0.6%
I	77.7%	66.1%	33.9%
J	65.3%	100.0%	0.0%
K	27.4%	53.6%	46.4%
L	54.1%	52.7%	47.3%
Across all health plans	32.5%	65.9%	34.1%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

There are two ways that a nonresponse can occur: First, if the data collector contacts the provider but does not get a response within 48 hours, that is considered a nonresponse and the data collector moves on. The second way is when the data collector reaches the provider but the provider declines to participate in the survey. Across all health plans for both PCPs and specialists, we find that providers not responding within 48 hours is the most common type of nonresponse (70.5 percent of nonresponse for PCPs and 65.9 percent of nonresponse for specialists). For some health plans, providers declining to respond is more common than for others. For example, several health plans (e.g., F, G, and J) report that no PCPs declined to participate, whereas others (e.g., B, D, and L) report that upwards of 40 percent of their nonresponses among PCPs were from providers who declined to respond. This may be due to providers responding to the initial survey from a health plan but declining additional health plan survey requests that come later in the survey period.

There may be differences in survey implementation or other factors that contribute to the observed differences in nonresponse rates. For example, some health plans indicated that they have strong relationships with their providers and feel that helps increase the response rates. Others reported that they focus on outreach and education prior to the survey to ensure that providers understood its importance. Some management service organizations that manage physician practices encourage provider participation by providing incentives to providers to participate in the survey. Health plans could work with these types of organizations to encourage participation in the survey.

Nonresponse is problematic because it is not expected to occur randomly and thus affects the representativeness of the sample. The current methodology does not account for nonresponse when calculating compliance rates. If doctors who do not respond are different from those who do in ways that are related to the likelihood of compliance, the survey data will then be biased and the compliance rates will not be reflective of provider appointment availability in the health plan's networks. In addition, nonresponse increases the number of providers that have to be contacted each year because each nonresponse needs to be replaced by another provider in the sampling frame in order for health plans to meet their required target sample sizes.

Additional data would be needed in order to understand and appropriately address nonresponse in estimating compliance rates. The raw survey data that we had available to analyze did not include many of the characteristics that might be useful in predicting and accounting for nonresponse. For example, the data only include the date the survey was completed, and this information is missing for nonrespondents. Including the date the provider was contacted would be helpful, as it would be useful to know if providers contacted later in the survey period were more likely to refuse to participate than those contacted early. Similarly, characteristics of the provider group (e.g., size) or office location might be important predictors of nonresponse, and this information is not currently available in the data. This type of analysis would help to determine if nonresponse is leading to bias in the estimated compliance rates and, if so, how it could be addressed through statistical weighting.

What Can Be Done to Reduce the Burden?

There are a number of ways that the burden associated with the PAAS could be reduced. In this section we will outline several options and assess them against two key criteria: the extent to which they reduce burden and the feasibility of implementation.

Centralized Sampling

One option for reducing burden would be to centralize the sampling process and account for the overlap in physicians between health plans, thus reducing the number of times a physician is contacted. Each health plan would submit its contact list to a central entity that would draw the samples for each health plan independently and identify the overlap between them. The data collection could also be centralized such that one survey vendor collects data across all of the health plans, only calls each provider one time, and allocates the results to the appropriate health plan, network, and county combinations. A version of this model is currently being used by nine health plans that use the same data collection vendor and a shared services model. Estimates obtained from the data collection vendor indicate that across the nine participating health plans there are over 62,000 unique providers, and approximately 50 percent of them are in at least three of the participating health plans. The vendor reports that the shared service model reduces outreach attempts to providers by 67.5 percent. Similarly, among the 12 health plans included in our data, we find that accounting for overlap between health plans could reduce the number of outreach attempts to PCPs by 60.3 percent and to specialists by 71.9 percent (see Table 2.9). These results suggest that if this model were applied across all health plans, or even a large share of health plans, the potential reduction in burden could be substantial.²

² We also estimated the reduction in burden assuming that each provider would need to be surveyed in each county he or she practices in. Under this assumption, centralized sampling could reduce outreach attempts by 56.9% for PCPs and by 62.5% for specialists. These reductions are somewhat smaller than if each provider is only surveyed once, but are still substantial.

Table 2.9. Unique Providers Represented in the 12 Health Plans, MY 2017

Health Plan	Unique PCPs in Plan Sample	Unique Specialists in Plan Sample
A	5,666	995
B	7,633	5,741
C	9,617	4,059
D	10,076	4,322
E	10,949	4,191
F	548	217
G	85	68
H	1,039	476
I	123	465
J	904	491
K	9,078	3,211
L	601	214
Total outreach attempts, not unique^a	56,319	24,450
Total unique providers across all health plans	22,343	6,863
Reduction in outreach attempts if each provider is surveyed one time^b	60.3%	71.9%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

^a This is a measure of the number of outreach attempts at the provider level if each health plan surveyed each provider only once. It is not a unique count, because some providers are observed in multiple health plans.

^b This measure looks at the reduction in outreach attempts from the current provider-based noncentralized method to a method in which providers are sampled in a centralized way and only surveyed once.

It is important to note, however, that a large proportion of all PCPs would still need to be contacted each year. The 22,343 that are included in the 12 health plans for which we have data represent approximately 60 percent of all active primary care physicians in California.³ This is a

³ Based on reports on state physician workforce published by the Association of American Medical Colleges (2015, 2017), the total number of active primary care physicians in California in 2016 was 36,700; the association derived this estimate from the American Medical Association's master file. Extrapolating the total based on the change observed between 2014 and 2016, we estimate the total number of active primary care physicians in California in 2017 to be 37,188. Consequently, the 22,704 unique PCPs in our data represent 61 percent of the total population of active primary care providers in California.

large share and only includes 12 of the 35 full-service health plans that were included in the MY 2017 Timely Access Report prepared by the DMHC (2018d).

It is not necessary that the data collection be centralized; it could be carried out by individual health plans. In this scenario the sampling entity would draw the samples for each health plan, identify the overlap between health plans, and allocate providers in multiple samples to only one of the health plans for data collection. The health plans would collect the data and submit it back to the sampling entity so that the responses of the providers in multiple samples could be shared with each relevant health plan and incorporated into their survey results.

Centralized sampling with or without centralized data collection has the potential to significantly reduce the burden of the PAAS on providers without any changes to the existing survey methodology. Moving to this type of model would require either the DMHC to mandate a centralized sampling system or for the health plans to coordinate and choose to implement this model themselves. The primary requirement is that there is coordination across health plans so that doctors represented in multiple samples are only surveyed once and the information is shared across health plans for the calculation of compliance rates. The shared service model that has been implemented provides a strong foundation on which to build.

The success of such a model depends on the quality of the implementation. A centralized model, organized by the Industry Collaboration Effort, was used in the past in an effort to gather the PAAS data in a more efficient manner. In MY 2015, 26 health plans used the Industry Collaboration Effort sponsored single-vendor model. After submission the DMHC identified many problems with the quality of the data, and the MY 2015 annual report did not include compliance data but rather descriptions of the many data issues (DMHC, 2017a). In discussions with health plans and the DMHC, the general consensus was that the problems were due to poor implementation of the model rather than fundamental problems with the centralized, or single-vendor, approach. If this type of change is made it would be important to identify an organization or entity that has the capability to plan and execute a complicated sampling effort and coordinate data collection.

Centralized Sampling Plus New Methods to Leverage Overlap Between Health Plans

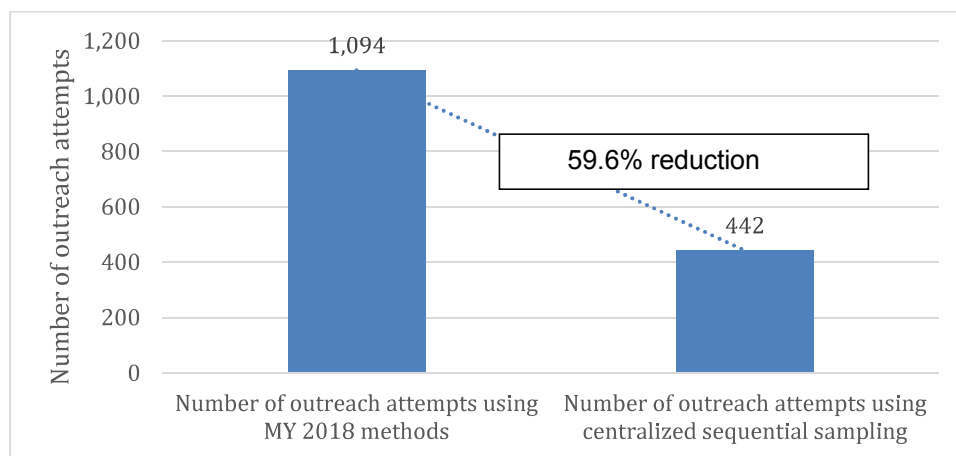
Working within the centralized sampling model, new sampling strategies could be employed to further reduce the overall sample size and associated burden. One option we identified would be to take the current sample selection strategy used within health plans when they have multiple networks in a county and apply it across all health plans. Under the current methodology, within a health plan the sampling strategy is designed to leverage the overlap between the various networks in a county. As described in the MY 2018 PAAS methodology (DMHC, 2018b), sampling begins with the network with the largest number of providers in the county; once the sample for that network is selected, the health plan moves to the next largest network in the county to select its sample. The plan determines how many providers included in the first sample are also in the second largest network and allocate those providers to the sample for the second

largest. If it is not enough to meet the target sample size for the second largest network, the health plan randomly selects additional providers from that network/county combination to fill it out. This process proceeds through all of the networks in the county, in order of size. In the end the health plan has a sample across the county that leverages the overlap in doctors between networks to reduce the overall size of the sample.

With a centralized sampling process, this sampling strategy could be applied across health plans. In this option sampling would begin with the health plan that has the largest number of unique providers in its contact list. Once the initial sample has been drawn, the sampling would proceed in order of size by health plan. The first step in drawing the sample for the second largest health plan would be to identify which providers from the initial sample are also contracted with the second health plan. These providers would automatically be included in the second health plan's sample. If additional providers are needed to reach the target sample size, providers would be randomly sampled from the second largest health plan's contact list to fill out the sample. This creates a running sample that includes providers from the largest and second largest health plans. Sampling of the third largest health plan would begin by identifying providers in the running sample that also contract with that health plan. These providers would automatically be selected for that health plan's sample, and any remaining providers needed to meet the target sample size would be drawn randomly. This process would proceed until samples for all of the health plans have been drawn. This sampling process takes full advantage of the overlap in providers between health plans to reduce the overall number of providers that need to be surveyed.

To illustrate the potential of this strategy to reduce the number of providers surveyed, we calculated the number of unique PCPs that would be sampled in Los Angeles County under this approach, which leverages the overlap between health plans, and compared that with the number of unique providers that would be sampled under the current methodology. We focused on Los Angeles County to scope out the analysis and provide an example of what is possible. To provide an estimate of the number of providers sampled under the current methods, we applied the MY 2018 sampling methodology to the MY 2017 contact lists for five health plans in our data that were operating in Los Angeles County. We then used the MY 2017 contact data for these health plans and applied the sequential sampling method across the five health plans. We found that centralized, sequential sampling in this way could reduce the number of unique PCPs sampled by 59.6 percent. It is likely that the overlap in Los Angeles County is larger than in other counties served by fewer health plans, so the estimate for Los Angeles County should not be applied statewide. It does, however, provide a sense of the reduction in burden that is possible in the larger counties where there are more health plans and more providers. Figure 2.3 shows the potential effect of centralized sequential sampling across health plans.

Figure 2.3. The Potential Effect of Centralized Sequential Sampling Across Health Plans



SOURCE: RAND analysis of MY 2017 PAAS contact data files provided by participating health plans.

NOTE: The table applies MY 2018 sampling methods to MY 2017 contact data.

This option would reduce the number of providers sampled by prioritizing selection of providers that contract with multiple health plans. When combined with either centralized data collection or allocation of providers in multiple health plans to a single health plan for data collection, the burden could be reduced even further as each provider would only be called one time. The reduction in burden estimated here is not easily comparable with the others presented in this report because it is based on the MY 2018 methods, whereas the others use MY 2017 data that reflect a different sampling methodology.

One statistical consideration with this approach is that it assumes that physicians in multiple health plans are similar to and representative of all other physicians. This assumption is present in the current DMHC methodology that allows for the leveraging of physician overlap within health plans. It remains to be explored, however, whether compliance varies for physicians who belong to one versus multiple health plans. The problem is most acute for smaller health plans that may have their needed sample size attained completely by the running sample and would not have a need to select any of their sample randomly. This could bias the compliance rate if the providers in multiple health plans are not representative of all of the doctors in a small health plan. It would be possible to adjust the methodology to require each health plan to select some providers randomly to improve representativeness within a health plan, though this would increase the number of providers that need to be surveyed. Another possibility would be to alter the sampling strategy to start with the smallest health plans and work upward. This would ensure that the samples for the smaller health plans are more representative of their networks. If the DMHC were to move to a sampling strategy of this type, the representativeness of the samples could be tested and, if needed, a statistical weighting scheme could be developed to improve the

representativeness of compliance estimates based on the data. As noted above, this method is already used within health plans to minimize sample size and thus is not unprecedented.

Surveying at the Office Location Level

Another option to reduce the burden of the PAAS on respondents is to change the sampling unit from providers to a larger unit such as office location. This would expand to all office locations the way that Federally Qualified Health Centers are treated in the sampling methodology. Under the current methodology such centers are treated differently: they are sampled as a whole rather than the providers who work at them being individually sampled (DMHC, 2017b). Changing the sampling unit would also reflect the way patients generally access care, through a provider office with potential access to any of the physicians and advance practice clinicians in that office. This is particularly true for staff model clinics, where enrollees are assigned to a clinic rather than a specific PCP, and to multiphysician practices. Surveying at the office location level also reflects and signals the value of team-based care in providing timely access to patients. Such surveying would require building a contact list at this more aggregated level and adjusting the survey question to ask about the next available appointment at that office location rather than with a specific provider.

The potential reduction in burden associated with sampling at the office location level is substantial. Looking within health plans, we see that the number of unique offices is significantly lower than the number of unique providers; on average there are 23 percent fewer unique office locations observed in the MY 2017 data. Assuming each health plan contacts each unique provider or office location only once, the total number of outreach attempts is the sum of the unique PCPs or offices in each health plan. As shown in Table 2.10, the number of outreach attempts is not a unique count because some providers and office locations are observed in multiple health plans. To illustrate the reduction in burden associated with a move from sampling at the provider level in a decentralized way to sampling office locations in a centralized way, we can compare the number of outreach attempts under the current methods (56,319) with the number of unique office locations across all health plans (17,142). This comparison indicates we could expect a nearly 70 percent reduction in the number of outreach attempts if each office were only surveyed once.

Table 2.10. Unique PCPs and PCP Office Locations Represented in the 12 Health Plans, MY 2017

Health Plan	Unique PCPs in Plan Sample	Unique PCP Office Locations in Plan Sample
A	5,666	3,402
B	7,633	4,817
C	9,617	4,448
D	10,076	4,351
E	10,949	3,727
F	548	319
G	85	43
H	1,039	369
I	123	43
J	904	311
K	9,078	3,518
L	601	248
Total outreach attempts, not unique^a	56,319	25,596
Total unique providers or office locations across all health plans	22,343	17,142
Potential reduction in outreach attempts in moving from provider-level to office-level sampling^b		69.6%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

^a This is intended to provide a measure of the number of outreach attempts at the office level if each health plan sampled each office only once. It is not a unique count, because some office locations are observed in multiple health plans.

^b This measure looks at the reduction in outreach attempts from the current provider-based noncentralized method (56,319) to a method in which office locations are sampled in a centralized way (17,142).

This analysis is based on the MY 2017 raw survey data. It does not incorporate any potential changes in target sample sizes or other methodological changes that were implemented in MY 2018.

This would be a major modification to the current methodology with potential logistical and statistical implications. On the logistical side, a new contact list would need to be developed at the office location level. There are a number of challenges and considerations in doing this. We identified office locations using address information in the current survey data. Addresses, however, can be difficult to match within and across health plans because there may be slight

differences in the way they are entered (e.g., “Blvd.” vs. “Boulevard”) or how complete they are (e.g., suite or office number within a building may or may not be included). In order to effectively implement this type of approach some careful thought about how to define and identify an office location would be required, and the data would need to be standardized across health plans.

On the statistical side, under this approach sampling units would reflect a range of offices of different sizes with more or fewer physicians practicing at a given location. In this case, for solo practitioners the office location unit would reflect a single provider, whereas for a large provider group a single office location might house many providers. To ensure statistical integrity under this approach and obtain a representation from different provider group sizes, stratified sampling, where office locations are categorized by size and each category has a different probability of sample selection, could be used to generate a sample that is representative of the variety of office sizes in each network. With different sampling probabilities assigned to each stratum in such a scenario, the inverse of the sampling probabilities would be used as sampling weight in the estimation of the compliance rates.

The office-based survey approach will work particularly well for medical group models where the physicians are typically at the same location. This method may not fully reflect the access that a provider in an independent physician association model might offer. Providers in such associations are not necessarily colocated, so the office location may not fully capture the alternative access capabilities of an independent physician association.

While there are a number of issues that would need to be resolved in order to implement this option, they are not insurmountable, and the benefit in terms of the burden reduction is substantial. The key conceptual and data issues that need to be addressed are defining what counts as an office location, determining how office locations will be identified in the data, generating a count of how many providers practice at that location, and developing the stratified sampling methodology and associated statistical weighting.

Improving Contact List Data

As described above, quality issues with the data in the contact list lead a large proportion of providers that are sampled to be ineligible for the survey. Investing time and resources up front to improve the quality of the contact data could reduce the burden of data collection by reducing the number of ineligible responses and thus the number of providers that must be contacted. One data collection vendor reported that in the most recent measurement year it focused on cleaning the health plans’ contact data at the outset and noted a strong return on that investment, with the number of ineligible responses being reduced by 34 to 68 percent, depending on the health plan. This process involved normalizing the data across health plans into a single common format and triangulating data by checking it against other sources (e.g., noting which is the best phone number for outreach). Based on the MY 2017 in our study, incorrect phone numbers, incorrect addresses, and incorrect information about which provider groups a provider belonged to were

the most common sources of ineligibility. Focusing improvement efforts in these areas would likely yield the greatest benefit. There are software tools available that may be useful in these efforts, such as ones designed to put addresses into a standard format.

Across the 12 health plans in our study, we find that slightly over 20 percent of outreach attempts are ineligible (see Tables 2.5 and 2.6). For PCPs this translates to 26,096 outreach attempts. Applying the midpoint of the range provided by the vendor (51 percent reduction), we estimate that data cleansing could reduce the number of ineligibles among PCPs in this sample to 12,787. This represents approximately 11 percent of the responses in the cross-plan PCP survey data. However, there is variation across health plans in the proportion of outreach attempts that are ineligible and thus some health plans could benefit more than others from data cleansing; we expect this option could be adopted on a plan-by-plan basis. For example, in Table 2.5 we saw that health plan A has a high rate of ineligibles (37.9 percent) compared with health plan F (6.4 percent). Consequently, the return on investment in data cleansing would be greater for health plan A. It is likely that the health plans with a low proportion of ineligibles already have data improvement practices in place.

Ideally, any data improvements made to the contact list would be fed back to the systems from which the list was derived. This would ensure that the health plan's information is updated and will avoid the need to fix the same problems the following year. If implemented widely by health plans and providers, a centralized provider directory, such as the Symphony Provider Directory that is currently under development, could help in this regard and lead to higher quality and more up-to-date contact data that can be used for sampling purposes. The integrated directory offers a single place for providers and health plans to update their data (Integrated Healthcare Association, undated). It is important to note that improving the information in the contact list will require efforts on the part of both health plans and providers to keep the contact information current.

Updating Target Sample Sizes to Reflect Ineligible Responses

Under the methodology used for MY 2018, target sample sizes are determined based on the number of providers in the network/county combination in the contact list.⁴ To reach the target sample size, each health plan pulls a primary sample and an oversample that can be drawn upon as outreach attempts result in ineligibles or nonresponses. The target sample size is static and does not adjust as the data collection progresses. For health plans with a high rate of ineligibles, the target sample size is based on a count of providers in the network or county that is much larger than the actual number. As such, the target sample size is larger than is needed for the desired statistical precision and it can be difficult for health plans with a high rate of ineligibles to meet their target sample size. Adjusting the target sample size to better reflect the actual

⁴ They differ depending on whether the network operates in one or multiple counties. See DMHC, 2018b, Appendix 1.

number of eligible providers in the network/county combination would reduce the number of calls that have to be made and thus the burden on providers.

One strategy for updating the target sample size as new information about ineligibles is collected would be to develop a statistically based algorithm that could be used to calculate new targets as the data collection progresses. The strategy could mirror the sample size chart in the DMHC methodology, where accounting for the number of ineligibles up to a point will trigger a new sample size. Table 2.11 presents an example of such algorithm where, for example, for a health plan with 40 providers in a county, if zero to four providers contacted were ineligible, the needed sample size would be 27, but if six to seven were ineligible, the needed sample size would drop to 24. In general, health plans can keep updating the sample size needed as they keep recording more ineligibles. The specific reduction would be determined based on power calculations to ensure that the sample is appropriately sized to produce desired confidence limits.⁵

Table 2.11. Example Sample Size Chart That Incorporates Reductions in Targets as Ineligible Responses Increase

Number of Providers in Network/County	Number of Ineligible Responses	Number of Providers to Sample	Number of Providers in Network/County	Number of Ineligible Responses	Number of Providers to Sample
8	2	6	20	2-3	15
8	3	5	20	4	14
8	4	4	20	5	13
8	5	5	20	6-7	12
8	6	2	20	8	11
15	1-2	12	40	0-4	27
15	3	11	40	5	25
15	4	10	40	6-7	24
15	5	9	40	8-9	23
15	6	9	40	10-11	22
15	7	8	40	12-13	21
15	8	7	40	14-15	20

NOTE: This table demonstrates how an adapted sample-size chart could look.

Because the required target sample size would be changing in real time over the course of the data collection period, additional flexibility in the survey wave requirements would be needed. Currently, data are collected in two waves with at least a three-week break period in between. The DMHC methodology requires that no more than 60 percent of providers in the sample be

⁵ For more information on target sample sizes and the desired confidence limits, see DMHC (2018b).

surveyed in the first wave (DMHC, 2018b). If the target sample size falls over time due to ineligible respondents, it will be difficult for health plans to ensure that no more than 60 percent was surveyed in the first wave.

Making Greater Use of Alternatives for Survey Outreach and Data Collection

Legislation and current methodology allow other ways to gather information about provider appointment availability. For example, in MY 2018 the survey methodology changed to allow health plans to contact providers initially by email or fax. The provider, or his or her representative, could then respond at a time during the day that was most convenient. If the provider did not respond to the email or fax in the appropriate time frame, the data collector would then attempt contact by telephone. The data for MY 2018 were not complete and available to us for this analysis, but in discussions with health plans we heard mixed results about whether the initial outreach by email or fax substantially reduced the number of calls that had to be made. Some health plans felt it had been very helpful and did not have to make as many calls; others reported very low response rates to the emails and faxes and thus little reduction in the number of calls made. One health plan that reported greater success with the initial email or fax outreach attempt attributed it to the fact that email is the way that the health plan typically communicates with and receives information from their providers and so it had valid and current email addresses and established practices that supported a robust response to such inquiries. Gathering responses through email and fax does not reduce the number of providers that are contacted, but it does reduce the burden on the provider by allowing him or her to respond at a time that is most convenient. When the results for MY 2018 are complete, it would be useful to identify health plans that had a strong response to the initial outreach attempt and identify any promising practices that could be shared and adopted by other health plans. It is possible that there is variation in preferred outreach methods (e.g., email versus phone) across provider types and thus a flexible approach that allows multiple survey modalities is needed.

The current methodology also allows health plans to collect data by querying appointment systems rather than surveying providers directly. Few health plans, however, take advantage of this option because, they argue, provider offices do not have systems in place that make this feasible. Significant investments in providers' and health plans' information systems and their interoperability would be needed to take greater advantage of this option. The potential of this electronic extraction option is growing over time as more provider groups implement patient portals that support online scheduling and a variety of other capabilities that improve patient access to information and care. Data from a survey of medical groups in California conducted by America's Physician Groups indicates that many are adopting patient portals and there are a small number of software platforms being used (Mevs, 2019). These portals are a possible source of nonsurvey information that could be used to demonstrate compliance with the time-elapsd appointment wait time standards.

As the legislation that requires the collection and reporting of timely access data indicates, “A plan may demonstrate compliance with primary care time-elapsd standards . . . through implementation of standards, processes and systems providing advanced access to primary care appointments” (DMHC, Office of Plan Monitoring, Division of Plan Surveys, 2014, p. 32). Advanced access is defined as “the provision . . . of appointments with a primary care physician, or other qualified primary care provider such as a nurse practitioner or physician’s assistant, within the same or next business day from the time the appointment is requested, and advance scheduling of appointments at a later date if the enrollee prefers not to accept the appointment offered in the same or next business day” (DMHC, Office of Plan Monitoring, Division of Plan Surveys, 2014, p. 31).

A growing number of provider groups and physicians’ offices use advanced access models. If health plans were able to take better advantage of this provision of the law and count providers in advanced access models as compliant without surveying them, it could reduce the number of providers that need to be surveyed directly and thus reduce burden. Under the current methodology, health plans are asked to submit the policies and procedures they use to verify advanced access models reported by contracted providers, medical groups, and independent practice associations, as well as a list of all providers utilizing advanced access models (DMHC, 2018a). This information, however, is not incorporated into the current PAAS methodology. One option for incorporating this information into the survey methods would be to include providers that are in advanced access practices in the sampling frame but to automatically give credit for compliance if these doctors are sampled. This would reduce the number of providers that have to be called.

Health plans currently report limited information about the use of advanced access models to the DMHC. It is possible that health plans are not aware of all providers that use this type of scheduling model. If such a change were made, health plans would have an incentive to gather this information so it could be used in the PAAS data collection and reporting process. To do so health plans and provider groups would need to work together to generate and maintain the data on the use of advanced access scheduling models. Health plans currently report the procedures they have in place to verify that practices that indicate their use of advanced access models are providing same- or next-day appointments for primary care. If this change were incorporated into the survey methodology, there might be a desire to expand and monitor those procedures more closely to ensure that timely access is indeed being provided.

Improving Communication and Outreach to Providers About the Provider Appointment Availability Survey

The PAAS experiences a high nonresponse rate. Across the 12 health plans in our data, we estimate nonresponse rates of 23.2 percent among PCPs and 32.5 percent among specialists (see Tables 2.7 and 2.8). High nonresponse rates not only affect the quality of the data but also increase the burden by increasing the number of providers who are contacted each year. We

observe substantial variation in nonresponse rates across the health plans in our study. It would be useful to assess health plans that have a lower nonresponse to identify factors associated with improved response, as well as any best practices that could be shared. In our discussions with health plans, some with higher response rates attributed them to the outreach and education they do with providers about the importance of the survey. We also heard that some management service organizations provide incentives to the providers in practices they manage to encourage them to complete the survey. Because many providers and office locations are being surveyed multiple times under the current methodology, the likelihood of nonresponse may increase after the first health plan surveys them. This could be due to fatigue or could be due to confusion on the part of the provider, which may not realize that it could be surveyed multiple times. Standardized directions and information provided by all health plans that make clear the importance of the survey and the possibility that providers may be asked to furnish information to multiple health plans could potentially help reduce nonresponse rates.

Assessment of the Options to Reduce Provider Burden

We have identified and discussed a number of potential ways to reduce the burden of the PAAS methodology on providers. Each option has its strengths and weaknesses. In general, the options that we identified that have the greatest potential to reduce the burden of the survey (e.g., centralized sampling designed to leverage overlap in providers between health plans, sampling at the office location level, and making greater use of nonsurvey methods for gathering compliance data) represent the largest deviations from the current methodology and thus make them more challenging to implement. More work would need to be done to operationalize these strategies and put them into practice. For example, there are statistical considerations related to the representativeness of a sample that is drawn leveraging the overlap in providers across health plans. These statistical issues are not insurmountable, but would need to be addressed; this would likely require additional resources and collaboration between the DMHC and health plans. Similarly, there are issues around defining office locations and identifying them in the data that would need to be addressed before sampling at the office location level could be implemented.

At the same time, the options that would be the easiest to implement such as updating the way target sample sizes are calculated to account for ineligible response or improving education and outreach to providers are expected to have beneficial impacts on burden, but the magnitude of those effects is small relative to other options.

Centralized sampling without other changes to the methodology and improving contact data are the two options that fall in the middle on both their effect on burden and their ease of implementation. The potential reduction in burden, while not as great as in some other options, is still significant under both. In addition, the implementation challenges are a bit more modest because they do not require significant deviations from the current methodology, and both are already underway to some extent. The centralized sampling approach is currently being

employed by some health plans that use the same data collection vendor and use a shared services or single survey model. This model could be further extended to incorporate additional health plans. Moreover, a centralized sampling approach could make it easier to implement additional refinements down the road. Similarly, the current efforts to build a centralized provider directory could be a key component of improved contact data. Better information on providers, their practice locations, and the networks they participate in could be very helpful in reducing the number of ineligible respondents included in the original samples. Moreover, the directory could support centralized sampling efforts by serving as the universe of providers from which to draw.

3. The Removal of the Alternate Provider Question from the Provider Appointment Availability Survey

Prior to MY 2018, the PAAS methodology considered a provider to be compliant with time-elapsd appointment standards if there was another provider within the same office location who had an appointment available within the required time frame. This was implemented through sequential survey questions. The first question asked about the sampled provider and when his or her next available appointment was for either an urgent or nonurgent request. If the next available appointment was not within the necessary time frame, a second question was asked about whether there was another provider at the same location who had an appointment available sooner. In the case of PCPs, the alternative provider could be another physician, an NP, or a PA. For specialists (e.g., cardiologists, child/adolescent psychiatrists, gastroenterologists, etc.), the survey question specified that the alternative provider be another physician of the same specialty (DMHC, 2017c). Starting in MY 2018, the second, or alternate provider, question was removed from the survey. In this chapter we discuss the reasons for the change, the concerns that health plans have raised, the impact of the change on compliance rates, and options for improving the measurement of timely access compliance.

What Is the Rationale for the Removal of the Alternate Provider Question?

The DMHC argued that the second question, whether there was another provider in the office who had an appointment available within the required time frame, raised issues of statistical validity. Ultimately, the first and second questions put together ask whether a patient can set up an appointment within a reasonable time frame at an office (with the specific provider in the first question being primary in the request), and the likelihood of such office-level compliance is expected to be higher than the likelihood of provider-specific compliance. A number of statistical issues are raised with the inclusion of the second question if the goal is to generate a provider-specific compliance rate. The survey sampling frame consists of all providers in the health plan's various network/county combinations. When the second question is asked, it can introduce new respondents into the sample, including eligible physicians who were not sampled and, in the case of the PCP survey, NPs or PAs that could see the patient. With the second question it is also possible for the same compliant appointment to be counted more than once. For example, if the data collector calls to survey Dr. Jones and finds her soonest appointment is not compliant, the data collector will ask about other providers in the office. If Dr. Smith, another doctor at that location, has an appointment available, the response for Dr. Jones is marked as compliant. If Dr. Smith is also sampled, the data collector may call the office back and ask about an appointment with Dr. Smith. Dr. Smith's available compliant appointment could be counted

twice in the health plan's survey data. This is problematic because it does not actually reflect two available appointments.

An additional concern that has been raised about the second question is that because it generates an office-based measure it can make comparisons of similar entities more difficult. The number of physicians who practice in particular offices can vary; as such, office-based measures will reflect units of different sizes. We would expect the likelihood of having a compliant appointment available at the office level to increase with the number of physicians in the office. This means that health plan-level compliance would be affected by the extent to which the health plan contracts with solo practitioners or larger provider offices. This issue, however, could potentially be addressed through statistical weighting.

What Are the Concerns Regarding the Removal of the Alternate Provider Question?

Health plans and delegated provider organizations are concerned about the removal of the alternate provider question because it places the focus of the survey on specific providers and gives a very narrow view of the access that a health plan's network provides. It does not reflect the value that a clinically integrated provider organization gives in terms of access and does not give credit for having a team-based care approach in place to meet patients' needs. Moreover, the focus on a specific provider does not reflect the patients' experiences and expectations in terms of how they currently access the health care delivery system when they call for an appointment. When a patient calls to request an appointment, particularly in an urgent situation, if the selected provider does not have an appointment in the patient's preferred time frame, he or she will often work with the appointment scheduler to find an appointment with an alternative provider who can meet the patient's needs. The alternative provider question in the survey accounted for this common practice that physicians' offices use to provide timely access for patients.

In the case of PCPs, removing the alternate provider question reduces the ability of physicians to meet timely access standards by making use of advance practice clinicians such as NPs and PAs. If NPs and PAs book appointments directly, they can be included in the sample of PCPs and surveyed directly. In many offices, however, the NPs and PAs do not book appointments directly, but rather take appointments as needed to make most efficient use of the physician's time. Advance practice clinicians play a key role in providing timely access to primary care, and the current methodology without the alternate provider question does not fully reflect that role.

In California the number of NPs and PAs in 2016 is estimated to be 19,646 and 9,752, respectively (California Health Care Foundation, 2017). The Agency for Health Care Research and Quality (2012) estimates that approximately 52 percent of NPs and 43 percent of PAs work in primary care. Combining these estimates indicates that approximately 10,216 NPs and 4,193 PAs are working in primary care in California. Given that there are approximately 36,700 active

PCPs in California, it is clear that NPs and PAs play a big role in primary care delivery; they represent about 28 percent of the total primary care provider workforce (i.e., physicians, NPs, and PAs working together in primary care).

The current survey methodology also does not account for a number of other ways that health plans provide access to care, such as through telehealth, patient portals, walk-in clinics, and urgent care centers. The DMHC currently has a work group in place to develop methods for incorporating telehealth visits into the timely access data collection and reporting procedures. The current method with or without the alternate provider question does not account for walk-in clinics and urgent care centers because it focuses specifically on providers who book appointments. It also does not account for access that patients receive through patient portals and secure emails that can address their questions and reduce the need for in-person visits.

What Is the Impact of Removing the Alternate Provider Question on Compliance Rates?

Using MY 2017 PAAS data we assess the impact of the removal of the alternate provider question on compliance with the time-elapsed standards by calculating compliance with and without the question. Compliance rates with the second question reflect how compliance was calculated in MY 2017. The compliance rate without the second question is based solely on the availability of the physicians sampled and provides a proxy for what we would expect to see in MY 2018 results. It is important to note, however, that other aspects of the methodology changed between MY 2017 and MY 2018 that could affect compliance rates. For example, in MY 2017 health plans sampled within provider group/county combinations, whereas in MY 2018 health plans sampled within network/county combinations. As such, using MY 2017 for this analysis actually provides a better estimate of the impact of the removal of the question on compliance rates than a MY 2017 to MY 2018 comparison because it allows us to isolate the effect of the question from the effect of the other methodological changes and time trends.

We find that without the second question, overall compliance for urgent appointments falls for PCPs by 9.2 percentage points and for specialists by 8.4 percentage points (see Tables 3.1 and 3.2). Compliance with the time-elapsed standards is higher across the board for nonurgent appointments compared with urgent appointments. The effect of removing the alternate provider question for nonurgent appointments is smaller than for urgent appointments, with reductions of 5.1 percentage points for PCPs and 6.3 percentage points for specialists.

The effect of removing the alternate provider question varies from health plan to health plan. For example, we see that for urgent PCP appointments, compliance falls by almost 20 percentage points for health plan H. In contrast, for health plan I, the removal of the question only reduces compliance by 2.3 percentage points. The difference in the impact of the change, particularly for urgent PCP appointments, likely reflects a number of factors, including the extent to which the

health plan contracts with large provider groups relative to solo practitioners and the extent to which the contracted providers use NPs and PAs as advance practice clinicians.

The effect also varies across insurance product type. We find the largest impact on compliance among commercial products. The effect is smallest for Medi-Cal products. In Table 3.2 we present the impact of the change by specialty. We find that the biggest effect is among gastroenterologists and the smallest is among psychiatrists.

Table 3.1. The Effect of Removing the Alternative Provider Question for PCPs, MY 2017

Health Plan	Urgent Appointments			Nonurgent Appointments		
	Compliance Rate With the Second Question	Compliance Rate Without the Second Question	Difference	Compliance Rate With the Second Question	Compliance Rate Without the Second Question	Difference
A	89.4%	77.8%	-11.6	94.0%	87.0%	-7.0
B	75.3%	66.2%	-9.1	89.4%	84.5%	-4.9
C	73.7%	63.9%	-9.7	88.3%	83.0%	-5.3
D	75.6%	66.5%	-9.1	88.7%	84.2%	-4.6
E	80.7%	72.9%	-7.8	89.7%	85.0%	-4.7
F	79.1%	69.5%	-9.6	95.8%	92.2%	-3.6
G	93.3%	85.0%	-8.3	96.7%	91.7%	-5.0
H	93.1%	73.2%	-19.9	95.6%	81.7%	-13.9
I	65.4%	63.2%	-2.3	95.7%	74.3%	-21.4
J	NA	56.8%	NA	NA	84.9%	NA
K	76.2%	67.8%	-8.4	90.7%	86.6%	-4.1
L	69.9%	61.2%	-8.7	84.7%	77.3%	-7.5
Across all health plans	77.5%	68.3%	-9.2	89.9%	84.8%	-5.1
By product type						
Medi-Cal plan	81.6%	75.4%	-6.2	88.9%	85.3%	-3.6
Commercial plan	76.9%	67.4%	-9.5	89.9%	84.7%	-5.2
Individual or family plan	82.0%	73.7%	-8.3	90.9%	84.6%	-6.2

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

NOTE: Due to rounding, the Difference columns may not show the exact difference between the two prior columns.

Table 3.2. The Effect of Removing the Alternative Provider Question for Specialists, MY 2017

Health Plan	Urgent Appointments			Nonurgent Appointments		
	Compliance Rate With the Second Question	Compliance Rate Without the Second Question	Difference	Compliance Rate With the Second Question	Compliance Rate Without the Second Question	Difference
A	73.2%	63.0%	-10.3	85.4%	79.8%	-5.6
B	69.5%	61.5%	-8.0	81.1%	75.2%	-5.9
C	72.9%	63.8%	-9.1	82.5%	76.2%	-6.2
D	72.2%	63.6%	-8.6	82.7%	76.5%	-6.3
E	73.7%	67.4%	-6.3	81.5%	75.8%	-5.8
F	69.8%	58.4%	-11.4	75.1%	72.7%	-2.4
G	94.1%	88.2%	-5.9	91.4%	88.6%	-2.9
H	83.9%	65.0%	-18.8	89.9%	76.6%	-13.3
I	60.0%	45.0%	-15.0	73.6%	58.7%	-14.9
J	60.1%	46.4%	-13.8	83.4%	69.4%	-14.0
K	70.4%	61.2%	-9.2	81.1%	73.8%	-7.3
L	75.6%	69.2%	-6.4	72.6%	71.6%	-1.1
Across all health plans	71.7%	63.4%	-8.4	81.8%	75.5%	-6.3
By type of product						
Commercial plan	71.5%	63.1%	-8.4	81.8%	75.5%	-6.3
Medi-Cal plan	73.0%	67.2%	-5.9	78.5%	73.8%	-4.7
Individual or family plan	75.2%	64.9%	-10.3	84.2%	76.4%	-7.8
By specialty						
Cardiology	81.4%	73.5%	-7.8	90.4%	86.1%	-4.3
Endocrinology	65.3%	58.2%	-7.1	73.2%	65.2%	-8.0
Gastroenterology	58.8%	48.0%	-10.7	72.1%	62.2%	-9.9
Psychiatry	55.9%	51.2%	-4.7	72.2%	69.4%	-2.8

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

NOTE: Due to rounding, the Difference columns may not show the exact difference between the two prior columns.

What Changes Could Be Made to the Provider Appointment Availability Survey Methodology to Better Reflect the Way Consumers Access Care and the Access That Health Plans Provide?

There are a number of ways that the PAAS methodology could be changed or expanded to provide a broader picture of the access that health plans provide to beneficiaries. In this section we outline several possible changes with this goal in mind. We describe each option, how it would provide a broader picture of access, and the feasibility of implementing the option.

Surveying at the Office Location Level

As was noted in Chapter 2, changing the sampling unit from the provider to the office location has the potential to reduce survey burden substantially. It also has the benefit of providing measures of appointment availability at the office location level, which more closely reflects the way that patients access care. When a patient calls requesting an appointment, if they cannot be seen within their desired time frame, the scheduler will generally offer an appointment with another provider if that provider has one available sooner. To implement this option the contact list would be developed at the office location level and the survey sampling could be done within network/county groups, as it is under the current methodology. The survey would be adapted to ask about appointment availability at the office location and time-elapsd standard could be met by any of the physicians of the appropriate type in that office. This would essentially remove the first question in the existing survey, which focuses on a specific provider, and maintain what had been the second question, which assessed availability at the office location instead.

Table 3.3. Estimated Compliance Under Office Level Sampling for PCPs and Specialists, MY 2017

Health Plan	PCPs		Specialists	
	Urgent Appointments	Nonurgent Appointments	Urgent Appointments	Nonurgent Appointments
A	83.4%	91.5%	63.6%	81.2%
B	69.5%	85.5%	62.5%	77.4%
C	71.0%	87.7%	67.5%	80.0%
D	74.8%	88.8%	69.0%	80.7%
E	82.5%	91.6%	73.7%	83.3%
F	74.6%	92.1%	56.6%	67.5%
G	97.3%	97.3%	86.4%	86.4%
H	86.5%	94.4%	76.5%	80.7%
I	81.6%	87.2%	67.6%	87.2%
J	75.5%	97.0%	61.8%	82.8%
K	77.1%	92.0%	67.6%	79.8%
L	73.5%	85.4%	75.7%	74.4%
Across all health plans	77.8%	90.1%	68.6%	80.6%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

We created an estimate of what compliance rates might look like under this scenario (see Table 3.3). To do so we looked across all providers from a unique office location and categorized the office as compliant if any of the providers at that location had an appointment available within the time-elapsd standards. An office was categorized as noncompliant if none of the providers at

that location had an appointment available within the time-elaps ed standards.¹ Using this method, we estimate that for PCP offices the compliance rate would be 77.8 percent for urgent appointments and 90.1 percent for nonurgent appointments (see Table 3.3). For specialists, we estimate that the compliance rate would be 68.6 percent for urgent appointments and 80.6 percent for nonurgent appointments. These estimates are quite similar to the compliance rates that incorporate the alternative provider question, particularly for the PCPs (see Tables 3.1 and 3.2).

The effect of this change on compliance rates at the health plan level would likely be related to the extent to which the health plan contracts with larger provider groups relative to solo practitioners. For large provider groups with multiple doctors at a single location, this change is expected to increase the likelihood of a compliant appointment being available—similar to the addition of the second question. For solo practitioners, on the other hand, this change would not be expected to affect the likelihood of a compliant appointment because the individual provider and office location would be the same.

As was noted in Chapter 2, this change in methodology would be significant and could benefit from statistical testing before implementation and could possibly require sample weighting in order to generate more representative results. For example, solo practitioners in this office location level methodology will have smaller (nonweighted) likelihood of compliance and for comparison to a policy required compliance standard/threshold, the compliance rate of a health plan should consider the number of providers in an office.

The DMHC’s Proposed Binomial Distribution Calculations

After removal of the alternate provider question in the MY 2018 PAAS methodology, the DMHC proposed a methodology that would inform compliance standards at the health plan level. Because the methodology has evolved over time, the data are not comparable from one year to the next, and it has been difficult to set a standard for compliance. For example, based on our analyses of MY 2017 data, we would expect that MY 2018 compliance rates will be lower than they were in MY 2017 due to the change in methodology and masking potential changes in actual compliance with the time-elaps ed standards. The proposed methodology used calculations based on a binomial distribution to determine that a 70 percent compliance rate based on the PAAS data would translate to a 97 percent probability that a patient would find a compliant appointment in the network by the time he or she called three different providers in the network (see Table 3.4). This calculation provides an additional piece of information to consumers about what it will take to find an appointment within the time-elaps ed standards.

¹ This method may underestimate compliance at the office level because it is only based on the providers that were included in the sample. If there are other providers at that location, the likelihood of a location being compliant could be even higher.

Table 3.4, The DMHC Rate of Compliance Table Using Binomial Probability Distribution

Rate of Compliance Table
Probability of Obtaining a Timely Appointment Based on Number of Requests Made

% of Providers Reporting Appointment Availability Within Applicable Time-Elapsed Standard	Appointment Request To 1 Provider	Appointment Request To 2 Providers	Appointment Request To 3 Providers
30%	30%	51%	66%
35%	35%	58%	73%
40%	40%	64%	78%
45%	45%	70%	83%
50%	50%	75%	88%
55%	55%	80%	91%
60%	60%	84%	94%
65%	65%	88%	96%
70%	70%	91%	97%
75%	75%	94%	98%
80%	80%	96%	99%
85%	85%	98%	100%
90%	90%	99%	100%
95%	95%	100%	100%

SOURCE: DMHC, undated-a.

The binomial distribution calculation, however, has some limitations. It assumes that all providers in a health plan have the same probability of being compliant and that each call that a patient makes to find a compliant appointment is independent. It is unlikely that either of these assumptions holds in practice. For example, when a patient contacts a provider for an appointment, he or she calls the provider’s office. If the specific provider is not available, the patient may be offered an appointment with another provider at that location. Any single call may reflect the availability of one or more providers in the network, making reaching a second provider dependent on the likelihood of the first one not being available. Similarly, it is possible that the assumption that all the providers in a health plan have the same probability of compliance is not suitable to all health plans. The likelihood of having an appointment available for any provider may be affected by the availability of other providers in the office or for the health plan more generally. For example, if a particular provider is experiencing a surge in demand for appointments (e.g., during seasonal flu outbreaks), other providers in his or her office may help fill the demand and thus have less availability as well. If this is the case, the binomial probability calculations would overstate the health plans’ ability to provide a timely appointment.

The calculation does, however, provide a way to illustrate that compliance rates based on specific providers might reflect much higher compliance at the health plan level. Moreover, for large provider offices (e.g., those with three or more providers), that level of compliance could potentially be reached by a single office and a compliant appointment achieved with just one call

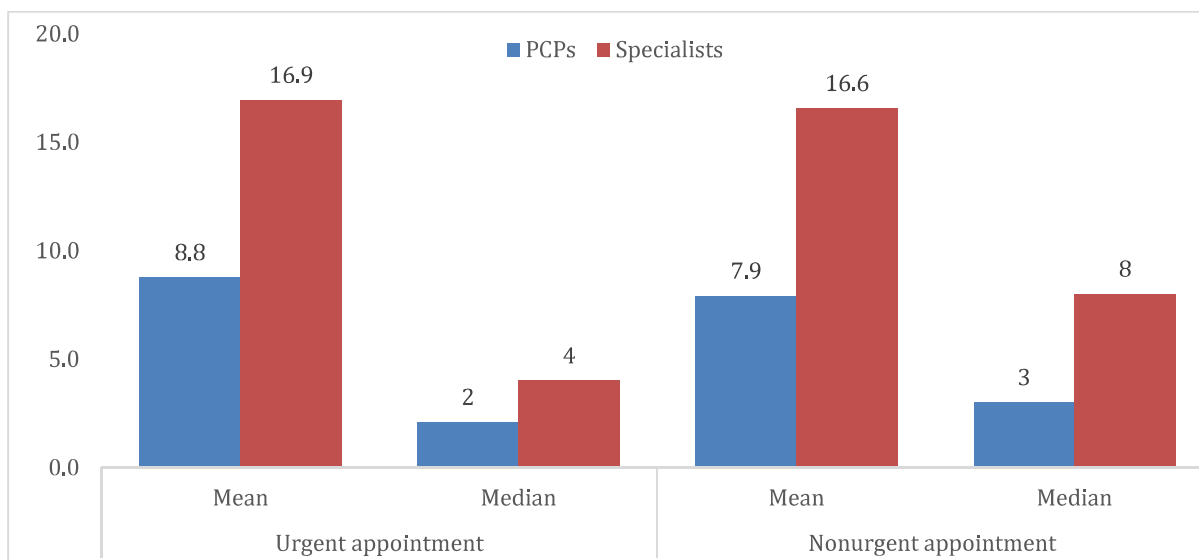
from the patient. This information could be useful to consumers in interpreting the compliance rates reported by the DMHC. Even so, there is some confusion around the calculation, so providing more information about the assumptions that underlie the calculation, what they mean, and how to interpret the information could be useful to consumers.

Reporting More Nuanced Information About Access

The timely access data collected each year is provided to the public in a summary report. The most recent report, for MY 2017, was released in December 2018 (DMHC, 2018d), and it provides a high-level summary of the timely access data collected, focusing primarily on the rate of compliance with time-elapsd standards at the health plan level for the different types of providers and different types of appointments. While information on compliance with the standards is important, the binary nature of the outcome (yes, compliant or no, not compliant) may not provide as much information for consumers as would be useful in making a choice between different health plans.

Additional information could be provided without collecting or incorporating any additional data. For example, consumers might find it useful to know the average number of days from request to appointment or the cumulative proportion of PCPs with appointments available by day. Figure 3.1 shows the mean and median days to an urgent and nonurgent appointment for PCPs and specialists for the 12 health plans in our data. In all cases, the mean is higher than the

Figure 3.1. Average and Median Days to Appointment, MY 2017



SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

NOTE: The days to appointment shown here are based on the dates for the sampled provider; they do not take into account whether there is another provider at the location with an appointment available earlier.

median, indicating that the distribution is skewed. In other words, there are a small number of observations with very high values that pull the mean upward. In this case, the median is a better measure of the typical wait time. For PCPs the mean time to an urgent appointment is 8.8 days and the median wait is only two days. The same pattern holds for specialists.

Looking at the cumulative proportion of respondents with available appointments by days can also provide useful information to consumers. As described above, using the MY 2017 methodology, which incorporates the alternative provider question for urgent care appointments, we find that 77.8 percent of respondents have an available appointment with themselves or within their office within 48 hours and meeting the time-elapsed standards. The cumulative proportion with an available appointment within three days increases to 81.2 percent, and moves up to 91.6 percent within seven days. The cumulative proportions are lower when the alternate provider question is not included (the second column of Table 3.5, and reflecting the MY 2018 methodology), with 86.0 percent of respondents having an appointment available within seven days. This could provide consumers with a more nuanced picture of the time they may have to wait for an appointment within a health plan.

Table 3.5. Cumulative Proportion of PCPs with Available Appointments by Day, MY 2017

Urgent Care Appointments		
	With the Second Question	Without the Second Question
2 days or less	77.8%	68.6%
3 days	81.2%	73.0%
4 days	85.1%	77.5%
5 days	87.7%	80.9%
6 days	90.1%	83.8%
7 days	91.6%	86.0%
8 days or more	100.0%	100.0%
Nonurgent Appointments		
	With the Second Question	Without the Second Question
10 days or less	89.9%	84.8%
11–15 days	90.8%	86.3%
15–20 days	93.0%	89.5%
21–25 days	94.9%	92.2%
26–30 days	96.7%	94.8%
30 days or more	100.0%	100.0%

SOURCE: RAND analysis of MY 2017 PAAS raw data files provided by participating health plans.

Another possibility would be to reinstate the alternative provider question and report both the doctor specific compliance rate, as in MY 2018, and the rate that incorporates the alternative provider question. This would allow for the statistical comparison of similar entities that the DMHC desires, but also provides consumers a sense of whether there are alternatives easily available to them at the same office location if their selected doctor does not have an appointment available in the specified time frame. Patients likely have different preferences and place different values on seeing a specific provider when they need care. In this case, different patients may want different types of information to inform their choices, and presenting both measures could be beneficial. To provide even more nuance, the report could include the two compliance rates and the average days to an appointment under both, as is noted in Table 3.5.

Under the current timely access reporting requirements, each health plan provides information to the DMHC on its use of telehealth, health information technology, and advanced access models to provide timely access to care. It may be useful to further incorporate this information into the PAAS methodology and the calculation of compliance rates. The DMHC currently participates in a work group focused on how to better incorporate telehealth appointments into the timely access data collection and reporting. Additionally, as more providers are using patient portals through which patients can communicate securely with their provider, it would be useful to consider whether these types of patient-provider interactions could be incorporated.

Similarly, the DMHC requires that health plans conduct annual provider and enrollee satisfaction surveys. These data, and particularly the enrollee satisfaction data, could potentially be standardized and incorporated into the Timely Access Report that the DMHC produces each year. The Consumer Assessment of Healthcare Providers and Systems is a suite of patient experience surveys (Agency for Healthcare Research and Quality, undated); its Health Plan Survey includes questions about whether patients were able to access care when they needed it. This type of information could provide a valuable perspective on timely access that would complement the current provider-based data collection and help inform consumer choices. While some patient satisfaction data is already collected by health plans, the process of standardizing and reporting this information to the DMHC would require time and effort to determine the best measures and to change survey methods as needed to provide comparable data across plans that is meaningful to consumers.

Grievances and appeals are another type of data that are already collected that could be incorporated into the DMHC's annual Timely Access Report. In addition, providing data on the availability of walk-in and urgent care centers that are available to enrollees would provide a broader picture of how patients can access care. Incorporating all of the relevant data into one report focused on the access that health plans provide would make it easier for consumers to find, assess, and make use of the information.

Incorporating Nurse Practitioners and Physician Assistants More Comprehensively into the Sampling Frame

Incorporating NPs and PAs into the sampling frame in a comprehensive way would provide a better assessment of the access that a health plan provides. Currently, only those NPs and PAs that book appointments can be included in the health plan's contact list for sample selection. However, in our discussions with health plans, several noted that since they do not generally contract directly with NPs and PAs (because in California NPs and PAs practice under the license of a contracted physician), the health plans do not have the same type and level of information that they do about the contracted physicians (e.g., National Provider Identifiers, supervising physician information, and licensure information). This makes incorporating them into the contact list difficult. In addition, there are physicians' offices that make use of advance practice clinicians to expand capacity, but those providers do not book appointments directly. As such, the current methodology does not include a substantial component of how many health plans provide timely access to care.

As was noted earlier, NPs and PAs are estimated to make up about 28 percent of the primary care workforce in California. Yet in the MY 2017 PCP survey data for the health plans in our study, NPs and PAs account for less than 1 percent of the observations;² very few appear to be sampled directly under the MY 2017 methodology. To incorporate NPs and PAs into the sampling frame, health plans will need to gather more information about these providers so that they can be included in the contact list and sampled directly.

This issue will become more acute over time, as NPs and PAs are expected to take on a greater role in meeting the demand for health care. A recent report of the California Future Health Workforce Commission (2019) highlights projections of looming shortages of physicians in California. The aging of the population leads not only to increased demand for health care services but also reduced supply as older physicians retire. The commission offers a number of recommendations to address the shortage, two of which focus on increasing the use of advance practice clinicians to improve access to care (California Future Health Workforce Commission, 2019).

The Assessment of Options to Provide a Broader View of Timely Access

We assessed several options that could be implemented to provide a broader view of the access that health plans provide. Each one has its advantages and disadvantages. Surveying office locations rather than specific providers would generate a compliance rate at the office level, a measure that may better reflect how patients access care. Moving to office-level sampling, however, is a major departure from the current methodology and would require a

² This estimate is based on the specialty variable in the PAAS raw survey data.

significant effort to operationalize and put into practice. Compiling additional types of information that provide consumers with more nuanced information about the access that health plans offer would be easier to implement, particularly if the approach focused on additional measures that can be derived from data that are already collected (e.g., measures of the distribution of days to appointment for the health plan). Expanding to new types of measures, such as ones derived from patient surveys, would take more time and effort to implement. However, the health plans already collect patient satisfaction data, so efforts to standardize and report those findings have a good foundation on which to build. The binomial distribution calculation is primarily used to identify a compliance standard and does provide some additional information to consumers over and above the health plan compliance rate. Incorporating NPs and PAs more directly into the sampling frame would generate a measure of timely access that more comprehensively reflects the ways in which the health plan provides access to care. Currently, health plans have less information about the NPs and PAs in practices and would need to gather this information to support their inclusion in the sampling frame.

4. Discussion

In this report we have focused on two issues related to the methods for collecting and reporting timely access data in California: the burden of the PAAS methodology on health care providers and the impact of a recent change in methodology that removed a question from the survey script and changed and narrowed the way compliance is measured. We identified and assessed a range of potential options for addressing these issues, and each had its own advantages and disadvantages.

The options vary in their effectiveness in addressing the issues and in how easy they would be to implement, and there are clear trade-offs between these two factors. The options that make small changes or additions to the existing methodology that would be relatively easy to implement are expected to have beneficial but relatively modest effects. Conversely, the options that represent the biggest deviations from the current methodology and would be more challenging to implement have the greatest potential to reduce burden or provide a broader measure of access. There are some middle-ground options that balance the trade-off between effectiveness and ease of implementation. These options tend to expand upon existing efforts to improve the data collection and reporting process.

A high-level summary of our assessment of the options is provided in Tables 4.1 and 4.2. The high, medium, and low ratings on the effectiveness and ease of implementation are relative to the other options considered. For both effectiveness and ease of implementation a rating of high is best.

Table 4.1. Assessment of Options for Reducing Provider Burden Associated with the Provider Appointment Availability Survey

Option	Effect	Ease	Summary
Centralized sampling	High	Medium	Could reduce outreach attempts by 60% for PCPs and by 72% for specialists. Implementation could build upon existing shared services model.
Centralized sampling and leveraging overlap	High	Low	Could reduce outreach attempts compared with MY 2018 methods by 60% for PCPs in Los Angeles County. Implementation would require development of statistical weighting to generate representative results. Based on method currently used within health plans.
Surveying office locations	High	Low	Could reduce outreach attempts by 70% for PCPs. There are implementation challenges with definitions and statistical weighting.
Improving contact list data	Medium	Medium	Expected to reduce number of ineligible by approximately 50% and overall sample by 11%. Some challenges in implementation, but over time could take advantage of centralized provider directory.

Option	Effect	Ease	Summary
Updating target sample size to reflect ineligibles	Low	High	Expected to reduce number of outreach attempts to reach target sample sizes. Easy to implement with lookup table included in PAAS instructions.
Making greater use of nonsurvey methods	High	Medium	Potential effect is large if there is a move to other modes of data collection and reporting. These changes could require significant investment in information technology and/or large changes to methodology.
Improving communication and outreach	Low	High	Providers may be more inclined to respond, but the effect is likely small. Implementation would be relatively easy, requiring development of standardized materials and outreach procedures.

Table 4.2. The Assessment of Options for Providing Broader Measures of Timely Access

Option	Effect	Ease	Summary
Surveying office locations	High	Low	Provides an office-level measure of access, reflecting the way patients access care. There are implementation challenges with definitions and statistical weighting.
Incorporating the DMHC's binomial probability calculation	Low	High	Provides a way to translate compliance rates based on specific provider to something that might better reflect a patient's ability to get a timely appointment within the network. It does not account for other types of access the health plan may offer, but would be easy to implement and report.
Reporting more nuanced access data	High	High	Providing additional metrics to assess timely access would give a more comprehensive picture to consumers. Implementation would be easier if the focus is on metrics derived from data that already exist. Some effort, however, may be needed to standardize that information.
Incorporating NPs and PAs into the sampling frame	Medium	Medium	Compliance estimates would include a key element of how health plans provide access that is now only partially captured. This could be difficult to implement, as health plans do not currently collect all of the information that would be needed, in large part because they do not typically contract directly with NPs and PAs.

Our analysis makes clear that the current timely access data collection and reporting methods are burdensome, and this has implications for both data quality and costs for all stakeholders. Moreover, the narrow focus of the survey on specific providers and office-based appointments does not capture the full range of access options that health plans offer (e.g., telehealth visits, patient portals, and urgent care clinics). Something needs to be done to improve the process, to make it less burdensome and produce data that are more useful to consumers.

We have outlined a number of options, described their potential effects, and the trade-offs between them. The options outlined here are not necessarily mutually exclusive and could be combined in different ways to address the issues. There needs to be a collaborative stakeholder process that includes the DMHC, health plans, providers, and consumers to consider the options,

weigh the pros and cons, and make decisions about how to move forward. This analysis provides a strong foundation for this important policy discussion.

Limitations

There are limitations to our analysis that should be noted. First, we had access to data from 12 health plans. These plans may not be representative of the 35 full-service health plans in California that reported timely access data to the DMHC in MY 2017. Therefore, our estimates of the potential reduction in burden or impacts on compliance due to removal of the alternate provider question may not reflect what would happen if all health plans were included. For example, if there is more overlap in physicians between the health plans that are included in our study than in the rest of the state, our estimates of the reduction in burden would be an overestimate for the other health plans. In addition, the results presented here are based on data from MY 2017; the MY 2018 data were not yet available from the health plans when we started this project. As such, the estimated effects of the reduction in burden are based on a change to the MY 2017 methodology. The MY 2018 methodology was changed to sample within network/county combinations rather than provider group/county combinations. This could affect the magnitude of our estimates of the potential reduction in burden. However, the relative magnitude of the different effects is likely the same.

Finally, in our analysis we have provided descriptive statistics that are meant to illustrate the potential effects of the different options. We have not analyzed any of the options at the depth that would be required for implementation. The estimates should thus be considered illustrative of the possibilities and not precise forecasts of what will happen.

Despite these limitations, this analysis provides useful input into a discussion of potential changes to the PAAS methodology and the relative magnitude of their potential effects.

Issues for Consideration Going Forward

The DMHC is required to finalize the timely access reporting regulations by January 2020. This will have the benefit of consistent methods and data from year to year. This will be important for setting standards and gauging progress over time. However, if the method is stagnant and does not keep up with changes in the health care market or how health care is delivered, the value of the information collected will fall over time. As such, it will be important to monitor health care trends and identify ways to allow the methods, metrics, and standards to evolve as needed.

The DMHC has selected quantitative metrics and standards for assessing timely access in California. The PAAS methodology is designed to generate these metrics and gauge health plan compliance with the standards. Compliance standards, however, need to be dynamic and should adjust to reflect differences in the supply and demand factors that affect consumers' access to care. For example, the standards could be adjusted to account for characteristics of the market in

which the health plan operates, characteristics that vary across areas, and characteristics that are outside of the health plan's control. If a health plan is not able to comply with the time-elapsing standards because there is a shortage of physicians in the market and the plan already contracts with all physicians in the area, there is little a health plan can do to increase compliance. In this situation, the compliance standard might be set lower, reflecting the reality of the market in which the plan operates. In contrast, if compliance is low but there are other physicians in the market with availability, the health plan could expand its network. In this case, the standard would not be adjusted and the DMHC could take enforcement actions if the plan did not take actions to improve timely access. Adjustments to the standards could be based on geography and other market characteristics. This would be similar to the adjustments Medicare makes to physician payments to reflect differences in the market (e.g., wages and other local prices) that affect costs but are outside the control of the physician.

The standards may also need to evolve over time as the health care system changes. For example, recent research projects that in California demographic and other factors will create growing imbalances between the supply and demand for physician services, creating shortages in different medical specialty areas (Coffman, Geyn, and Himmerick, 2017). Current and projected future shortages of primary care clinicians are exacerbated by clinicians' demographic characteristics. One-third of California's primary care physicians are age 55 or older (Coffman, Geyn, and Himmerick, 2017). Older primary care physicians are much less likely to provide patient care than are their younger peers, and those who provide patient care work fewer hours per week. Approximately half of the primary care physician and PA workforces, and most of the NP workforce, are women, and women tend to work fewer hours per week than men (Coffman, Geyn, and Himmerick, 2017). If these shortages are not addressed, it will become more difficult for health plans to comply with the time-elapsing standards. The standards may need to be adjusted over time to reflect these changing supply conditions.

Similarly, the way that access is defined and measured will also need to be refined and allowed to evolve with changes in the health care delivery system. For example, there is growing use of NPs and PAs to provide a wider range of medical services within the health care delivery system. A study focusing on the potential benefits of developing and adopting new care models that integrate NPs and PAs and other advanced practice clinicians into our health care delivery system (Auerbach et al., 2013) has found that such models helped reduce the effects of projected physician shortages. This research highlights the need for timely access methods and regulations to be flexible and dynamic to allow for and properly measure changes in our health care delivery system. The current method does not capture this element of health care delivery very well, and this will become more problematic over time.

Another evolving source of care that is not measured by current timely access methods is the use of telehealth services. Currently, appointment times are only calculated for in-office physician visits. A recent report by the California Health Benefits Review Program (2019) projects that use of telehealth visits will continue to grow in California from the 2020 estimated

share of all outpatient visits that are telehealth visits (5.7 percent) to more than 6 percent within several years and will continue to grow with advances in technology and changes in reimbursement by health plans.

While there are important benefits to finalizing the PAAS methodology, there is also a need for flexibility and the ability to evolve over time. The ultimate goal of the timely access reporting requirements is to protect consumers' health care rights. To do so effectively the data collection and reporting system used to monitor those rights needs to be flexible enough to incorporate changes as the health care system evolves.

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WHAT IS THE RATIONALE FOR AN INSURANCE COVERAGE MANDATE?
EVIDENCE FROM WORKERS' COMPENSATION INSURANCE

Marika Cabral
Can Cui
Michael Dworsky

Working Paper 26103
<http://www.nber.org/papers/w26103>

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
July 2019

For providing helpful comments, we thank James Anderson, Mark Duggan, Liran Einav, Itzik Fadlon, Alex Gelber, Josh Gottlieb, Jonathan Gruber, Adriana Lleras-Muney, Seth Seabury, and seminar participants at BU/Harvard/MIT Health Economics, Cornell University, Ohio State University, Stanford University, the University of California Davis, the University of California Los Angeles, the University of California San Diego, the University of Michigan, the University of Texas at Austin, the University of Wisconsin Madison, the American Society of Health Economists Annual Conference 2018, the National Tax Association Annual Meeting 2018, and the Austin-Bergen Applied Microeconomics Conference 2018. Additionally, we thank several employees of the Texas Department of Insurance for helpful discussions about the institutional details and data. We thank Andriy Bega, David Beheshti, Frank Martin-Buck, and Seth Neller for their excellent research assistance. The authors gratefully acknowledge the RAND Institute for Civil Justice for financial support. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

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What is the Rationale for an Insurance Coverage Mandate?

Evidence from Workers' Compensation Insurance

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NBER Working Paper No. 26103

July 2019

JEL No. H0,I1,I13,I18,J38

ABSTRACT

There is ongoing policy debate about whether government insurance coverage mandates are necessary to effectively address market failures in private insurance markets. This paper analyzes the demand for insurance in the absence of a coverage mandate and the potential market failure rationale for coverage mandates in the context of workers' compensation insurance. Workers' compensation is a state-regulated insurance program that provides employees with income and medical benefits in the event of work-related injuries or illnesses. Nearly all states have mandated workers' compensation insurance coverage; the sole exception is Texas. Using administrative data from the unique voluntary Texas workers' compensation insurance system, we estimate the demand for workers' compensation insurance leveraging idiosyncratic regulatory updates to relative premiums across industry-occupation classifications. The difference-in-differences estimates indicate that the demand for workers' compensation coverage is price-sensitive, with a 10% increase in premiums leading to approximately a 3% decline in coverage. Drawing upon these estimates and additional data on claim costs, we analyze the potential rationale for government intervention to increase coverage through subsidies or a mandate. This analysis suggests that classic market failure justifications for government intervention in insurance markets—such as adverse selection, market power, and externalities—may not be compelling justifications for a mandate in this setting.

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1 Introduction

For many risks individuals face, the government is involved in the provision of insurance. Government involvement spans the spectrum from regulating pricing or coverage options in private insurance markets, to mandating the purchase of private insurance, to even the direct provision of insurance. The recent policy controversy surrounding the coverage mandates included in the Affordable Care Act has fueled an ongoing policy debate over the appropriate role of the government in the regulation of private insurance markets: should the government allow consumers to choose whether or not to purchase insurance, or should the government mandate the purchase of private insurance? Proponents of coverage mandates argue that they are necessary to address market failures such as adverse selection or externalities. Opponents of coverage mandates argue that allowing consumers to decide whether or not to purchase insurance while guaranteeing access to insurance (through, for example, regulating the form of coverage and pricing) is a better solution that respects consumer choices while overcoming the main inefficiencies that can arise in insurance markets.

This paper analyzes the demand for insurance in the absence of a coverage mandate and the potential rationale for coverage mandates in the setting of workers' compensation insurance. Workers' compensation is one of the first examples of large-scale social insurance in the United States, with the enactment of workers' compensation systems dating back to the 1910s.¹ Workers' compensation is a large state-regulated insurance program that provides covered employees with income and medical benefits in the event of work-related injuries or illnesses in exchange for forgoing the right to sue their employer for compensation for these workplace injuries.² Workers' compensation insurance is the primary mechanism for recourse for workplace injuries in the U.S.; the aggregate cost of work-related injuries within state workers' compensation systems was \$96.5 billion in 2016, representing 1.3% of covered payroll.³ Workers' compensation insurance coverage mandates are almost universal, with all but one state mandating that employers provide workers' compensation insurance coverage to employees.⁴ Texas is unique among U.S. states in having no coverage mandate for workers' compensation insurance, leaving employers in Texas free to choose whether or not to participate in the state-regulated workers' compensation system. A worker who suffers an on-the-

¹The first comprehensive workers' compensation law in the United States was passed in Wisconsin in 1911. Nine other states passed regulations that year, followed by 36 more states by 1920. The final state to pass comprehensive workers' compensation legislation was Mississippi in 1948. For further discussion of the history of workers' compensation programs, see: Guyton (1999); Howard (2002); Larson (1951-1952).

²For convenience, we use *workplace injury* to refer to both workplace injuries and illnesses.

³Source: National Academy of Social Insurance Report (McLaren, Baldwin and Boden (2018)).

⁴Interestingly, many state workers' compensation programs were voluntary until the early 1970s. In 1972, the National Commission on State Workmen's Compensation Laws recommended that workers' compensation coverage be made compulsory, and by the mid-1970s almost all states passed amendments mandating that employers provide workers' compensation insurance. South Carolina enacted a coverage mandate in 1997, leaving Texas as the only remaining state with a voluntary workers' compensation insurance program. See Section 2.1 for more detail on the history of workers' compensation mandates.

job injury at a *participating employer* (i.e., an employer that participates in the state workers' compensation system) receives workers' compensation benefits as defined by statute. In contrast, there are no statutorily defined benefits for a worker who suffers an on-the-job injury at a *non-participating employer* (i.e., an employer that has chosen not to participate in the state workers' compensation system), and such employers may be exposed to tort liability for workplace injuries. In Texas, the total payroll covered by workers' compensation insurance policies was \$254 billion annually in the period 2006-2011, which represents roughly 73% of the total Texas private industry payroll.⁵

Recently, lawmakers in several states have begun to re-evaluate their workers' compensation coverage mandates and consider a voluntary workers' compensation insurance system based on the Texas model. In 2013, Oklahoma enacted a law intended to allow employers to opt out of the state workers' compensation system though the law was overturned by the Oklahoma supreme court in 2015.⁶ Similar laws have recently been proposed in state legislatures in Tennessee, Florida, South Carolina, and Arkansas. These recent legislative actions have revived the ongoing debate about the rationale for mandating workers' compensation insurance and whether this coverage should be mandated.

The debate over coverage mandates in workers' compensation raises several unanswered questions. What would be the prevalence of workers' compensation insurance take-up in the absence of a legal requirement to provide coverage? How responsive is the take-up of workers' compensation to the price of coverage? What is the potential rationale for workers' compensation coverage mandates or hypothetical other alternative interventions such as subsidies? Despite the importance of these questions to the emerging policy debate over workers' compensation coverage mandates, evidence on the determinants of the demand for workers' compensation coverage and the rationale for coverage mandates is extremely scarce. In this paper, we empirically examine the demand for workers' compensation coverage within the context of the Texas workers' compensation system, with the aim of providing evidence on these questions. The Texas workers' compensation system provides a unique opportunity to investigate these questions for several reasons. First, coverage is voluntary, and thus it is possible to analyze the demand for coverage. Second, while coverage is voluntary, other aspects of the state-regulated workers' compensation system are very similar to the workers' compensation systems in other states (e.g., the state regulates the form of coverage, the pricing of policies available from private insurers, etc.). Thus, Texas provides a useful case study of an otherwise typical workers' compensation system that exists in the absence of a coverage mandate. Third, there exists extensive, plausibly exogenous variation in premiums and rich administrative data on coverage, costs, and premiums.

⁵Authors' calculations are based on the total covered payroll reported by the Texas Department of Insurance and the total payroll in Texas as estimated from the Quarterly Census of Employment and Wages published by the Bureau of Labor Statistics.

⁶See Sengupta, Baldwin and Reno (2014).

Using rich administrative data on workers' compensation coverage, we exploit variation in insurance premiums resulting from regulatory updates to analyze the demand for workers' compensation insurance. Like other state workers' compensation systems, the workers' compensation system in Texas is heavily regulated by the state, both in terms of the form of policies and the premiums insurers can charge. In particular, the structure of relative premiums across industry-occupation classifications is set by the government. We utilize idiosyncratic regulatory updates to these industry-occupation relative premiums in a differences-in-differences framework to estimate demand. These periodic regulatory updates induce large changes in premiums within classification, over time: the mean absolute premium update is 8.9%, and the interquartile range of premium updates is 14.5%. Exploiting this variation, our baseline demand estimates suggest that a 10% increase in the premium results in approximately a 3% decline in the number of firms enrolled in workers' compensation insurance and the payroll covered by workers' compensation insurance. The demand estimates are statistically precise and robust to alternative specifications including more flexible controls, alternative specifications exploiting the precise timing of the updates, and alternative specifications exploiting non-linearities in the rate update algorithm.

Motivated by the ubiquity of coverage mandates in the setting of workers' compensation insurance, we then use the demand estimates along with administrative cost data to investigate various potential rationales for government intervention to increase coverage through a mandate and/or subsidies in this market. Specifically, we consider three classic market failure rationales for government intervention to increase coverage: adverse selection, market power, and externalities. Following the approach outlined by Einav and Finkelstein (2011) and Einav, Finkelstein and Cullen (2010), we employ administrative cost data to investigate the degree of selection in this market, leveraging the premium variation used to estimate demand. We find no evidence of adverse selection in this setting, indicating that there is no evidence that adverse selection justifies a coverage mandate in this market. We then explore market power as a potential alternative justification for government intervention through a series of welfare counterfactuals. In this analysis, we interpret the estimated demand for workers' compensation as representing the combined surplus of employers and employees, as they jointly make up the consumers in this market. This analysis suggests that there is little welfare at stake comparing the status quo to a perfectly competitive market and that market power is not a compelling justification for a coverage mandate in this setting. Lastly, we present additional analysis suggesting that potential externalities on external parties—such as health insurers or charity care providers—do not appear to be a compelling justification for mandating coverage in this market.

Overall, our analysis suggests coverage mandates in this setting may not be motivated by classic market failure rationale such as adverse selection, market power, and externalities. We conclude by discussing two possible interpretations of our findings. One interpretation of this evidence is that a workers' compensation

insurance coverage mandate may not improve welfare relative to a regulated voluntary market for this coverage. Another interpretation of the evidence is that there may be alternative justifications for a coverage mandate, such as behavioral biases or labor market frictions, that go beyond the classic market failure rationale we investigate in the revealed preference welfare analysis. Our empirical strategy does not allow us to rule out (or rule in) either of these interpretations though we briefly discuss the plausibility of these interpretations in light of prior studies on workers' compensation insurance.

Beyond addressing an important policy question, our research contributes to several distinct areas of the economics literature. This paper contributes to the recent growing literature investigating asymmetric information in private insurance markets and the welfare implications of government intervention. Some recent empirical papers have analyzed welfare in settings such as health insurance (e.g., Hackmann, Kollstad and Kowalski (2015), Einav, Finkelstein and Cullen (2010), Bundorf, Levin and Mahoney (2012), Finkelstein, Hendren and Shepard (2017)), annuities (e.g., Einav, Finkelstein and Schrimpf (2010), Finkelstein and Poterba (2004)), disability insurance (e.g., Cabral and Cullen (2018)), and unemployment insurance (e.g., Hendren (2017), Landais et al. (2017)).⁷ Our paper contributes to this literature in two key ways. First, our study is the first to investigate adverse selection and the efficiency consequences of government intervention to increase coverage in the setting of workers' compensation insurance. Workers' compensation insurance is a large and important insurance market, and there is active policy debate concerning government intervention to increase coverage. A major barrier to studying this question is that workers' compensation coverage is typically mandatory, making it impossible to estimate the demand for insurance in a counterfactual voluntary market for this coverage. This study overcomes this challenge by leveraging the unique voluntary market for workers' compensation insurance in Texas. Second, while several studies in this literature focus on welfare in isolated settings utilizing data from one employer or one insurer, this study is among only a handful of studies that investigate the welfare effects of government intervention in a large market that is particularly relevant for current policy debates.

Our paper also contributes to the broader literature on workers' compensation insurance. Much of the prior literature on workers' compensation insurance focuses on the incentive effects of program features (e.g., Krueger (1990*a,b*); Meyer, Viscusi and Durbin (1995); Neuhauser and Raphael (2004)), the impact of the generosity of medical benefits (e.g., Powell and Seabury (2018)), and the incidence of the program or changes within the program (e.g., Fishback and Kantor (1995); Gruber and Krueger (1991)).⁸ This paper contributes to this literature by being the first study to investigate a voluntary workers' compensation market to estimate the demand for workers' compensation insurance and to analyze the potential efficiency

⁷For a more comprehensive review of this literature, see Einav, Finkelstein and Levin (2010) and Chetty and Finkelstein (2013).

⁸See Krueger and Meyer (2002) for a review of the prior literature investigating the labor supply effects of workers' compensation insurance wage replacement benefits.

implications of government intervention to increase coverage, providing evidence pertinent to the ongoing policy debate surrounding workers' compensation mandates.⁹ Lastly, this paper contributes to the literature on the demand for employment-linked insurance. While much of the prior work on the demand for employment-linked insurance focuses on contexts such as health insurance (e.g., Finkelstein (2002); Gruber and Lettau (2004); Kolstad and Kowalski (2016)) and long-term care insurance (e.g., Courtemanche and He (2009)), our paper is the first to provide evidence on the demand for workers' compensation insurance.

This paper proceeds as follows. Section 2 provides details on the institutional setting and the data. Section 3 outlines the empirical strategy, and Section 4 presents the demand estimates. Section 5 considers potential rationales for government intervention to increase coverage, presenting supplemental evidence and welfare analysis. Lastly, Section 6 concludes.

2 Background and Data

In this section, we begin by providing background information on the structure of the Texas workers' compensation system and workers' compensation systems more broadly. We then describe the data sources we utilize and present descriptive statistics.

2.1 Background

2.1.1 Workers' Compensation Insurance

Workers' compensation is a state-regulated insurance system that provides covered employees with income and medical benefits for work-related injuries or illnesses. Workers' compensation is frequently characterized as a "grand bargain" between workers and employers: relative to the status quo that preceded the enactment of workers' compensation statutes in the early 20th century, workers gained a reliable source of no-fault compensation for on-the-job accidents while employers gained protection from tort liability resulting from on-the-job accidents. Each of the 50 states and the District of Columbia has its own workers' compensation program. In contrast to unemployment insurance, workers' compensation is entirely the prerogative of the states, with no significant federal involvement.¹⁰

Institutionally, the way this market functions is that employers purchase workers' compensation coverage. This coverage provides employers with liability protection against workplace injuries and provides employees with medical and income benefits in the event of workplace injuries. Workers' compensation

⁹Our work is also related to a few prior descriptive studies on employers opting out of the Texas workers' compensation system. Butler (1996) finds that safety conditions—as proxied by workplace fatalities—are not systematically different across participating and non-participating employers though reported sprains and strains are lower among firms opting out of workers' compensation insurance. Morantz (2010) conducts and summarizes an employer survey assessing the compensation for work-related injuries at large non-participating employers, and Morantz (2016) summarizes detailed data on compensation offered to injured employees at select employers opting out of the workers' compensation insurance system.

¹⁰Separate U.S. government programs also cover federal civilian employees and specific high-risk workers such as energy employees exposed to radiation.

insurance coverage is effectively mandatory for employers in all states other than Texas. In contrast, employers in Texas can choose whether or not to provide workers' compensation insurance coverage to their employees.¹¹ Although coverage mandates in 15 other states have exemptions for very small businesses and many states have additional exemptions for specific classes of workers such as agricultural or domestic workers, Texas is the only state where a substantial portion of the workforce is outside the workers' compensation system. In 2014, an estimated 20% of non-federal workers in Texas were not covered by workers' compensation, while an estimated 1.4% of non-federal workers in other states were not covered by workers' compensation insurance (Baldwin and McLaren, 2016).

Interestingly, workers' compensation coverage mandates have not always been the norm. Until the early 1970s, more than a third of state workers' compensation systems were voluntary.¹² In 1972, the National Commission on State Workmen's Compensation Laws recommended that workers' compensation coverage be made compulsory, and by the mid-1970s almost all states had passed amendments mandating that employers provide workers' compensation insurance.¹³ South Carolina enacted a coverage mandate in 1997, leaving Texas as the only remaining state with a voluntary workers' compensation insurance program. Recently, several states have begun to consider rolling back their coverage mandates to revert to a voluntary workers' compensation insurance system.

Most workers' compensation coverage is provided through insurance policies purchased by employers from workers' compensation insurers, either private insurers or public/quasi-public insurers (also known as state funds), which have considerable market share in many states.¹⁴ The majority of the Texas workforce that is covered by workers' compensation obtains this coverage through an employer-purchased policy from a workers' compensation insurer. The Texas workers' compensation insurance market is fairly concentrated: the top 10 insurance companies in 2015 served 79% of the market, and the largest insurer, Texas Mutual Insurance Company, served 40% of the market (TDI, 2016). Texas Mutual Insurance Company, formerly the Texas Workers' Compensation Fund, is a quasi-public insurer and wrote \$947 million in direct written premiums in 2015. The Legislature created Texas Mutual in 1991 to serve as a competitive force in the marketplace and to guarantee the availability of affordable workers' compensation insurance.

While most employers obtain workers' compensation coverage through purchasing a workers' com-

¹¹Government agencies and public institutions are required to provide workers' compensation insurance.

¹²An opinion by the New York Court of Appeals—*Ives v. South Buffalo Railway Company* 94 N.E. 431 (NY 1911)—struck down a compulsory workers' compensation statute under the New York state constitution. Potentially as a consequence of the *Ives* decision, many states adopted elective workers' compensation insurance systems to avoid legal scrutiny. The U.S. Supreme Court—in *Mountain Timber Co. v. Washington* (1917)—upheld a compulsory workers' compensation insurance law, which settled the constitutional concern about the legality of a coverage mandate. In light of this, it is interesting to note that more than a half century later several states mandated participation in their workers' compensation insurance systems. For more detail on the history of workers' compensation insurance mandates, see Howard (2002); Morantz (2010); Larson (1951-1952); National Commission on State Workmen's Compensation Laws (1972).

¹³See National Commission on State Workmen's Compensation Laws (1972).

¹⁴In four states, a state fund is the only provider of workers' compensation insurance.

pensation policy from an insurer, some large employers have the option to become a certified self-insured employer. Certified self-insured employers are required to provide the same regulated benefits to employees in the event of workplace injury or illness in exchange for protection from tort liability. Texas imposes strict requirements on certified self-insured employers, effectively limiting this option to very large firms that can demonstrate substantial reserves for paying out future claims.¹⁵ Perhaps because of these strict requirements, only 95 employers were certified self-insured in Texas at any point during our period of analysis, 2006-2011, and these firms collectively represent approximately 5% of Texas private sector workers.¹⁶

2.1.2 Prevalence and Consequences of Non-Participation

Table 1 describes aggregates from a biennial employer survey commissioned by the Texas Department of Insurance (TDI) investigating the prevalence of employer participation in the Texas workers' compensation system.¹⁷ Averaging across the 2006/2008/2010 surveys, workers' compensation insurance coverage is held by approximately 66% of Texas employers, representing 78% of employees statewide. There are a few notable dimensions of heterogeneity in workers' compensation coverage. First, the fraction of participating employers increases with employer size: employers with fewer than five employees are nearly twice as likely to opt out of workers' compensation insurance relative to firms with more than 500 employees. We note that this pattern of increasing participation with employer size is not monotonic, with very large firms with more than 500 employees being more likely to opt out of the workers' compensation system than slightly smaller firms with 100-499 employees. Second, employer participation rates are higher in the high-risk goods-producing industries and lower in service sectors. However, the participation rate varies within a fairly narrow range across the aggregated industry groups, with the highest participation rate (77%) in mining/utilities/construction and the lowest participation rate (54%) in arts/entertainment/accommodation/food services.

When an employer participates in the workers' compensation system, legal recourse for workplace injury is replaced by a no-fault system of defined benefits in the event of workplace injury. Workers' compensation serves as the exclusive remedy available to covered workers for workplace injury and illness,

¹⁵As of January 1, 1993, employers who meet certain safety and financial requirements may apply to be a certified self-insured employer in Texas. Self-insurance allows an employer to assume the risk for the vast majority of its workers' compensation liability and purchase some form of excess or stop-loss coverage to protect the employer from catastrophic losses. Self-insurance provides employers with greater control over claims and disability management, and it also provides loss-control incentives for employers to promote workplace safety. To be eligible for the certified self-insured program, private employers need to have an estimated unmodified manual insurance premium of at least \$500,000 in Texas, or at least \$10,000,000 nationwide, and meet other qualifications. As of January 1, 2016, there are about 130 employers who are self-insured in Texas. A detailed list of self-certified employers can be found here: <http://www.tdi.texas.gov/wc/si/documents/selfinsurlist.pdf>.

¹⁶For this study, we obtained data on the 95 firms ever self-insured during the analysis period, 2006-2011. Based on the administrative data provided by the Texas Department of Insurance (TDI), these firms collectively represent approximately 450,000 workers, or roughly 5% of Texas private sector workers.

¹⁷See TDI (2014). Choi (2011) presents an in depth discussion of the strengths and limitations of these survey data.

meaning that workers covered by workers' compensation cannot sue their employers for negligence. In comparison to a successful lawsuit or legal settlement, workers' compensation also limits the amount of compensation available to workers: earnings losses are not fully insured by workers' compensation, and workers' compensation does not allow workers to recover non-economic damages (i.e., pain and suffering or punitive damages) that may be compensated in a lawsuit.¹⁸ When employers opt out of the workers' compensation system, they forgo the protections afforded by the exclusive remedy feature of workers' compensation and assume the risk of liability for negligence.

Employers outside the workers' compensation system manage legal settlements for work-related injuries and illnesses in a variety of ways. For instance, roughly a third of non-participating employers design a formal or informal occupational benefit plan to offer workers after they suffer a work-related injury.¹⁹ In contrast to workers' compensation insurance, the existence of an alternative occupational benefit plan does not shield an employer from tort liability.²⁰ Instead, one way to think about these plans is as a standardized form of settlement offered to employees after suffering a common work-related injury, where these benefit packages reduce the transaction costs associated with addressing injuries through the tort system. Based on a survey of large non-participating employers, Morantz (2010) reports that these plans typically offer medical and wage replacement benefits for temporary impairments and that it is common for non-participating employers with these plans to still reach legal settlements outside the scope of these plans, particularly for cases involving permanently impaired workers. Further, Morantz (2010) reports that non-participating employers commonly state that an advantage of opting out is the ability to control the design of benefits available to injured workers.^{21,22}

Importantly, workers' compensation coverage may be valued by both employers and employees for

¹⁸While no systematic data exist on lawsuits and legal settlements, our discussions with individuals in the workers' compensation legal industry in Texas suggest that lawsuits involving injured employees at non-participating employers typically conclude with an out-of-court settlement (instead of proceeding to trial).

¹⁹Source: TDI (2014).

²⁰It is unlawful for non-participating employers to contract with employees pre-injury to restrict avenues for legal recourse in the event of an injury. This point was clarified in 2001 when the Texas Workers' Compensation Act was amended to include a prohibition against waivers of the right to bring a lawsuit against non-participating employers. See Acts 2001, 77th Legislature, Ch. 1456(e) and Texas Labor Code Sec. 406.033(e) (2010). This amendment was a reaction to legal challenges to such waivers at some non-participating employers. Since the enactment of this 2001 amendment, an injured worker at a non-participating employer has the right to sue their employer for negligence regardless of any existence of an occupational benefit plan. After an injury takes place, a worker may decide to accept a settlement from a non-participating employer.

²¹According to Morantz (2010), in some ways non-participating employer occupational benefit plans on average appear more generous than statutory benefits in the workers' compensation system: these plans typically do not have a waiting period, do not cap the weekly wage replacement benefits for temporary impairments, and have a longer eligible duration for wage replacement benefits for temporary impairments. In other ways, these alternative plans appear less generous: most alternative plans have an end-of-shift or 24-hour reporting deadline (as compared to 30-day deadline in the workers' compensation program), do not cover permanent partial or total disability, limit medical benefits to about two years, and impose per-person or per-event caps on total benefits. See Morantz (2010), Morantz (2016), and Butler (1996) for a more in-depth comparison of compensation for work-related injuries at large non-participating employers relative to benefits within the workers' compensation system.

²²Given prior evidence suggesting there is substantial scope for moral hazard in workers' compensation insurance (e.g., Krueger (1990b), Krueger (1990a), Meyer, Viscusi and Durbin (1995)), it is perhaps not surprising that some employers would try to innovate over the standard workers' compensation benefit package given the opportunity. The impact of the particular alternative risk management techniques adopted by non-participating employers is an important topic for future research.

several reasons. First, the existence of workers' compensation insurance may reduce the payments from employers and employees to lawyers relative to the outside option of legal recourse, providing surplus that may be split between employers and employees. Second, risk averse employers and/or risk averse employees may value the statutorily defined benefits of workers' compensation insurance over the uncertainty involved with recourse through the tort system. The delays and uncertainty involved in pursuing compensation through the tort system were an important motivation for the establishment of workers' compensation systems (Fishback and Kantor, 1998).

Of course, there may be heterogeneity across both employers and employees in the valuation of workers' compensation insurance relative to the outside option of legal recourse. From the perspective of an employee or employer, there are two horizontally differentiated options that offer recourse for work-related injuries and illnesses: workers' compensation insurance and legal recourse. While some employers and employees may place a large value on workers' compensation insurance over the outside option of legal recourse, others may place little value on workers' compensation insurance relative to the outside option. Heterogeneous values for workers' compensation may reflect heterogeneity across employers/employees in the attractiveness of the outside option. For instance, there may be significant heterogeneity in the transaction costs associated with reaching settlements for workplace injuries in the absence of workers' compensation insurance or heterogeneity in the ability to manage moral hazard within the outside option relative to the workers' compensation insurance system. The crux of the argument made by proponents of the Texas model is that a one-size-fits-all coverage mandate may hurt employers and employees alike as it does not accommodate heterogeneous preferences in the relative valuation of workers' compensation coverage compared to the outside option.

While employers decide whether or not to purchase workers' compensation insurance, the consumer in the workers' compensation market may more accurately be thought of as some combination of employers and employees because both employers and employees may benefit from this coverage. As will become clear below, the empirical strategy and data utilized in this paper do not allow us to investigate the division of surplus among consumers in this market (e.g., between employers and employees). Instead, we have two primary aims in this paper. First, we estimate the demand for workers' compensation insurance using regulatory variation in premiums. Second, we analyze potential rationales for coverage mandates. For some of this latter analysis, we interpret the estimated demand curve as representing the joint valuation of workers' compensation insurance to both employers and employees. This interpretation is valid if employers account for employee preferences, as well as their own preferences, when purchasing workers' compensation insurance. For instance, the theory of compensating differentials suggests that employers would account for employee preferences when selecting whether or not to purchase workers' compensa-

tion insurance. In Section 5.3, we discuss the robustness of our analysis to relaxing this interpretation and potential alternative justifications for coverage mandates if this interpretation is not appropriate.

2.1.3 Regulation of Premiums and Benefits

Like other state workers' compensation programs, Texas regulates both the form of workers' compensation insurance policies that may be sold and the pricing of these policies. The policies sold by workers' compensation insurers guarantee the same stated benefits in terms of wage replacement and medical coverage in the event of injury. The basic structure of premiums per \$100 of covered payroll charged to employer j by insurer i in time period t for plan type p can be described by the following expression:

$$\text{premium}_{jitp} = b_t(c_j) \times r_t(e_{jt}) \times d_{ip} \times f_{it}. \quad (1)$$

There are several components to this premium. The base rate, $b_t(c_j)$, depends on an employer's workers' compensation industry-occupation classification, c_j . TDI sets these classification base rates for the 360 distinct industry-occupation workers' compensation classifications. As discussed further below, our empirical strategy exploits regulatory updates to these classification base rates, which induce classification-specific idiosyncratic shocks to the relative premium for obtaining workers' compensation coverage. Another component of the premium is an experience rating multiplier, $r_t(e_{jt})$, which is a function of employer j 's prior experienced claim history, e_{jt} . Like the classification base rates, the experience rating multiplier function is set by the regulator. Additionally, there is a regulated plan type multiplicative discount (d_{ip}) for plans that deviate from the standard coverage by including features such as employer deductibles or more restricted health care provider networks.²³ Lastly, each insurer can choose its multiplier, f_{it} , which gives the insurer the ability to set the overall price level charged for its policies even though insurers cannot set relative prices across classifications or loss experience groups.

In practice, employers may have multiple associated industry-occupation classifications if they have a diverse workforce. Typically, an employer has a primary classification, often referred to as the *governing classification*, which covers the vast majority of the employer's payroll.²⁴ Actual premiums paid are adjusted to account for the fraction of the employer's workforce dedicated to other categories (most commonly clerical and transportation services), and the percent of payroll allocated to each classification is subject to verification with ex post payroll auditing. Throughout we treat an employer's payroll classification(s) as

²³In practice, the most common plan type discount is an employer deductible discount, and the allowable deductible discounts are set by the regulator. For smaller discounts (e.g., network discounts), the insurer has some discretion in setting the multiplicative discount rate applicable for all policies sold of that plan type.

²⁴Based on the authors' discussions with the Texas Department of Insurance Actuarial Office, it is common for medium-to large-sized employers to have a governing classification that represents roughly 80-90% of payroll with adjustments for the remaining 10-20% of payroll dedicated to other areas, most commonly clerical or transportation services.

exogenous. In Appendix Section D.1, we illustrate that it is uncommon for employers to change governing classifications, and changes in governing classifications are not systematically related to the rate updates we leverage for identification.

As described further below, we investigate two coverage measures in the demand estimation: the number of covered employers and total covered payroll. In our analysis below, the number of covered employers is constructed based on an employer's governing classification as this is the classification information reported in the policy-level data. In contrast, the measure we use for total covered payroll is constructed by TDI, which precisely allocates payroll across the corresponding classifications. The demand estimates are similar across specifications using these two measures.

2.2 Data

We have compiled a unique dataset for this study drawing on several administrative data sources. We obtained publicly available administrative actuarial data from TDI at the classification-year level for several measures of interest describing the workers' compensation insurance market, including covered payroll, mean claim cost data, and industry-occupation classification base rates. Through an open records request, we obtained additional TDI actuarial data on mean premiums at the classification-year level. We also obtained unique administrative micro-data on all employer workers' compensation insurance policies through a separate open records request. These data contain information on each workers' compensation insurance policy, including employer identifiers, workers' compensation industry-occupation classification code, North American Industry Classification System (NAICS) industry code, insurer name, policy effective date, premiums paid, and policy expiration date. Additionally, we obtained supplemental administrative data on each certified self-insured employer in the state of Texas for our analysis period through a third open records request; these data include firm name, number of covered employees, and coverage effective dates. We augment the administrative data on the Texas workers' compensation system with public data on employment from the Quarterly Census of Employment and Wages (QCEW). Finally, we supplement these data with data reported by TDI on insurer combined loss ratios (Choi, 2011). The main analysis will utilize data from 2006 to 2011, as all of the key variables are available for this period.

Throughout, our analysis focuses on private sector employees as government employees are insured through a separate system. Our baseline analysis excludes certified self-insured employers and associated employee payroll. We make this exclusion for two key reasons: (i) our identification strategy leverages variation in the premiums for coverage purchased from workers' compensation insurance providers, and (ii) the administrative data on covered payroll and claims are only available for the payroll covered through policies purchased from a workers' compensation insurance provider. While in principle the regulatory

updates to premiums could have induced substitution between the market for purchased policies and certified self-insurance, in practice we find no such substitution. Further, using administrative data on both the number of employers with purchased policies and the number of certified-self insured employers, we illustrate that the demand analysis in terms of the number of covered employers is qualitatively and quantitatively very similar regardless of whether we include the certified self-insured. See Appendix D.2 for this supplemental analysis.

Table 2 Panel A displays summary statistics for several key variables aggregated to the state-year level. Across the analysis period, approximately \$254 billion of payroll is annually insured through the Texas workers' compensation system, comprising approximately 73% of private sector Texas payroll.^{25,26} The number of claims per \$100 of covered payroll is 5.86×10^{-5} , representing an annual mean claim probability of roughly 2.9% for workers earning \$50,000 annually (roughly the mean annual earnings in this population). The mean premiums for policies sold is \$1.79 per \$100 of payroll. The mean total claim cost (inclusive of both the insurer costs and employer out-of-pocket costs) associated with workplace illness and injury for covered employees is \$2.11 per \$100 of covered payroll, with roughly 60% of costs attributable to medical spending and 40% to income benefits.²⁷ Because the classification-year claim cost data are inclusive of the costs paid out-of-pocket by employers, we cannot compare the classification-year premium and total claim cost data to understand the insurer profit margins. Given this data limitation, the welfare analysis in Section 5 utilizes this claim cost data to trace out the slope of the insurer average cost curve, under the assumption that insurer claim costs are proportional to total claim costs. We then augment these data with aggregate reported combined insurer loss ratios to identify the level of profit margins (the distance between the average cost and demand curves at the observed quantity insured).

Table 2 Panel B displays unweighted summary statistics describing the baseline estimation sample: classification-year-level data covering 2006-2011. The sample consists of the 1,950 classification-year observations for which there is positive covered payroll, which collectively represent 326 distinct industry-occupation classifications. The mean covered payroll is \$782 million across observations, with the interquartile range spanning from \$25 million to \$306 million. In addition to the variation in the size of classifications, there is considerable variation in classification base rates, mean premiums, and subsequent claim costs. The unweighted mean premium is \$5.75 per \$100 payroll, with the interquartile range spanning from \$3.04 per \$100 payroll to \$7.09 per \$100 payroll. To contextualize this variation, Appendix Table A1 displays the largest classifications by covered payroll among classifications in the lowest 5% of the 2006

²⁵As noted in Table 2, dollar quantities are CPI-U adjusted to be 2006 dollars.

²⁶We calculate that the covered payroll in the Texas workers' compensation market comprises approximately 73% of private sector Texas payroll by comparing TDI administrative covered payroll data to total private sector payroll data from the QCEW 2006-2011.

²⁷Employers bear some of the claim costs through employer cost-sharing (e.g., deductibles).

base rate distribution and among classifications in the highest 5% of the 2006 base rate distribution. Low risk classifications, such as clerical employees, salespersons, physicians, college professional employees, and architects, comprise some of the largest classifications at the low end of the base rate distribution. The largest classifications at the high end of the base rate distribution represent high risk classifications, such as oil and gas well employees and drivers, bus drivers, electric light or power line construction workers, and roofing employees. Comparing rates across the tails of the base rate distribution, we see that workers' compensation premiums are approximately 40 times higher for oil/gas well employees than for clerical office employees. While there is substantial cross-sectional variation in base rates across industry-occupation classifications, our identification strategy leverages within-classification idiosyncratic shocks to base rates induced by regulatory updates, as described further in the following section.

3 Empirical Strategy

3.1 Variation

Our strategy to estimate the demand for workers' compensation coverage is to isolate plausibly exogenous variation in premiums arising from regulatory updates to base rates across industry-occupation classifications. As described in the prior section, premiums are heavily regulated in this market, and the Texas Department of Insurance (TDI) is charged with setting the relative premiums across roughly 360 industry-occupation groups through setting the corresponding classification base rates employed in this market. Since all further adjustments to premiums are multiplicative and orthogonal to classification, a 1% increase in the classification base rate leads to a 1% increase in premiums. We utilize idiosyncratic updates to these base rates in a differences-in-differences framework for our main estimation.

Prior to 2009, TDI updated base rates on an annual basis, while in more recent years base rates are updated every other year. There were four total base rate updates during our analysis period, in each of the following years: 2007, 2008, 2009, and 2011. Below, we provide a brief outline of the regulators' algorithm for updating base rates, and then we summarize a few key features of the algorithm. A basic outline of the steps of the update algorithm is as follows:

1. Input raw claim loss experience within a classification from five-year window, lagged by three years (e.g., for 2007 base rate, input is raw losses from 2000-2004).
2. Raw losses are adjusted to exclude all amounts in excess of \$350,000 per claim, \$700,000 per accident.
3. These limited losses are adjusted to a common level (the average level of current base rates).
4. Take the weighted average of the indicated rate (the average adjusted losses from the from previous step) and the current rate, where weights depend on number of claims ("credibility weighting").

5. Normalize the rates from the prior step to have the same mean as the current year and cap the change to be at most +/-25% of the current classification base rate.
6. (Some Years) Across-the-board update to base rates.

The inputs into the update algorithm are: (i) historical classification claims experience (specifically, a five-year moving average of claims experience with a three-year lag) and (ii) current classification base rates. The algorithm determines the weight to place on this claims experience versus the current classification base rate through an assessment of the noise in this experience measure. The algorithm then caps any changes at +/- 25% of the current classification base rate. Appendix Section A presents a full description of the rate update algorithm. As described further below, we exploit several mechanical features of this algorithm that generate arbitrary variation in base rates to investigate the robustness of our findings.

The final output of the algorithm is an updated set of base rates, where these rates are normalized so that the weighted mean of the base rates is unaltered by this update process. There are three updates during our period that are exceptions: 2008, 2009, and 2011. During these updates, TDI made an across-the-board downward level adjustment in base rates as a final step in the update process (step 6 above).²⁸ Because insurers are free to set the level of premiums overall (as described in the prior section), insurers can effectively undo the effect of any across-the-board adjustment in the level of base rates on premiums. Additionally, all of our analysis will include time effects, allowing us to focus on updates in the relative base rates across classifications (as opposed to the level of base rates). Thus, our discussion of the identifying variation below focuses on the updates to the proposed base rates (the output from step 5) before any across-the-board adjustments, not the final adopted base rates.²⁹

Figure 1 displays a histogram depicting the updates to the classification base rates as a percentage of the current base rates.³⁰ This figure displays these updates pooling across all updates during the sample period, while Appendix Figure A1 displays histograms of the updates year by year. There are a few things worth noting about this figure. First, the figure illustrates that the typical updates in classification base rates are large in relative terms. The mean absolute percent change in the base rate is 8.9%, and the interquartile range of percent changes in base rates is 14.5%. Second, as discussed above, the figure clearly depicts that the base rate updates are capped at +/- 25% change relative to the current classification base rate level. Pooling across the updates during the sample period, the cap is binding for 6.6% of classification updates.

²⁸In 2008, 2009, and 2011, classification base rates were decreased across the board by 7.7%, 10%, and 7.4%, respectively.

²⁹Each table and figure clearly indicates which base rate is being described. Appendix Section A describes the update algorithm step-by-step and describes the role of each of the interim and final base rates we discuss in the text.

³⁰This histogram describes the distribution of classification proposed base rate updates prior to any across-the-board adjustments to the level of base rates in the years in which this occurs (2008, 2009, 2011). As discussed further in the text, because year fixed effects are included in all the specifications, all the identification will come from changes in the base rates before any across-the-board adjustments. Thus, Figure 1 focuses on this variation. Nevertheless, for comparison, Appendix Figure A2 separately plots the histograms of final base rate updates year-by-year inclusive of any applicable across-the-board adjustments.

Figure 2 presents another illustration of this cap feature of the base rate update algorithm. Pooling data across the base rate updates, this figure plots the ratio of hypothetical uncapped base rates to current base rates on the horizontal axis and the ratio of proposed capped base rates to current base rates on the vertical axis for each classification update. Inspecting this figure, we see that the cap feature constrains the actual proposed updates to lie between 0.75 and 1.25 times the current rate, yet some classifications would have received much larger updates (in absolute value) if not for the cap feature.

The baseline empirical strategy leverages all of the idiosyncratic updates to base rates in a difference-in-differences framework to estimate the demand for workers' compensation coverage. A potential concern with this strategy is that the base rate updates rely on historical cost data from the classification, and thus these updates could reflect broader trends in the classification, which could have an independent effect on the demand for coverage. We have three broad strategies to address this concern. First, we estimate differences-in-differences specifications that include classification-specific time trends, allowing us to isolate the effect of plausibly exogenous changes to premiums that reflect deviations from classification trends. Second, we estimate additional alternative specifications that leverage the precise timing of updates. Lastly, we estimate alternative specifications that exploit variation in base rates arising from non-linearities in the regulatory formula. We discuss each of these strategies in more detail below in the context of our estimating equations.

3.2 Econometric Model

Let j represent workers' compensation industry-occupation classification and t represent time period. The main regression we estimate can be written as:

$$\ln(y_{jt}) = \alpha + \beta \ln(b_{jt}) + \delta_j + \theta_t + \epsilon_{jt}, \quad (2)$$

where $\ln(y_{jt})$ is the dependent variable, and $\ln(b_{jt})$ is the natural logarithm of the classification base rate. The specification includes time period fixed effects (θ_t) and classification fixed effects (δ_j). The dependent variables we investigate measure workers' compensation insurance coverage. Specifically, we focus on two coverage measures as dependent variables: (i) the natural logarithm of the total number of covered firms associated with classification j and for policies originating in time period t , and (ii) the natural logarithm of the total covered payroll associated with classification j and for policies originating in time period t .

As described in Section 2.2, many of the variables of interest are available at the classification-year level. Thus, our baseline demand estimation utilizes classification-year-level data, where the key independent variable, $\ln(b_{jt})$, is the natural logarithm of the average classification base rate applicable for policies

associated with classification j and originated in year t .³¹ Because some of the base rate updates occur mid-year, we repeat the analysis at the classification-month level for dependent variables available at a higher frequency (e.g., the number of covered employers). This additional analysis yields estimates very similar to the annual estimates, as discussed further in Section 4.

The key identification assumption behind the specification above is that changes in base rates are uncorrelated with other determinants of the take-up of workers' compensation insurance, conditional on the included controls. As discussed above, a potential concern with the baseline identification strategy is that the base rate updates rely on inputs such as historical cost data from the classification, and thus these updates could reflect broader trends in the classification, which could have an independent effect on the demand for coverage. We have three broad strategies to address this concern and assess the validity of the baseline identifying assumption.

Our first strategy is to include classification-specific time trends in several of our specifications:

$$\ln(y_{jt}) = \alpha + \beta \ln(b_{jt}) + \delta_j + \theta_t + \lambda_j t + \epsilon_{jt}, \quad (3)$$

where $\lambda_j t$ represents a classification-specific time trend. Due to power considerations, we include these classification-specific trends at two-digit classification level given our limited sample period. In the Texas workers' compensation insurance system, there are approximately 360 distinct four-digit classification codes, which are grouped into roughly 70 distinct two-digit classification codes. These specifications relax the identification assumption by focusing on base rate updates that cause deviations in workers' compensation take-up after accounting for long-run trends among classifications with similar risk experience.

Our second strategy is to estimate specifications that leverage the precise timing of the regulatory rate updates. As discussed above, the historical cost data used as an input in the regulatory update algorithm are a five-year moving average of classification claims experience with a three-year lag. If, contrary to the identification assumption, changes in these inputs have an independent effect on workers' compensation take-up, then we would expect to see that changes in workers' compensation take-up pre-date the regulatory rate updates. To assess if this is the case, we estimate regressions of the following form:

$$\ln(y_{jt}) = \alpha + \beta \ln(b_{jt}) + \phi \ln(b_{j,t+2}) + \delta_j + \theta_t + \lambda_j t + \epsilon_{jt}, \quad (4)$$

where $\ln(b_{j,t+2})$ represents the natural logarithm of classification base rates to be implemented two years into the future. Recall, the update algorithm constructing $b_{j,t+2}$ draws on historical costs in classification j

³¹Because some years span a base rate update, the average base rate is calculated as a weighted average across all policies sold for a particular classification in a particular calendar year, utilizing administrative data on each employers' policy effective date.

from year $(t-6)$ to $(t-1)$. Thus, $b_{j,t+2}$ is arguably more relevant than $b_{j,t}$ for capturing the expected costs in classification j in time t , though $b_{j,t+2}$ does not affect pricing at time t after controlling for the current base rate, $b_{j,t}$. If our baseline identification assumption holds, we would expect to see no relationship between workers' compensation take-up and this additional term (i.e., $\phi = 0$), and the estimated coefficient on the actual base rate (β) is not sensitive to the inclusion of this additional term.³²

Lastly, our third strategy to assess the identification assumption is to estimate specifications that take advantage of non-linearities in the regulatory update algorithm. As discussed above, proposed updates to classification base rates are capped to be no greater than $\pm 25\%$ of the current classification base rate level. If, contrary to the baseline identification assumption, the inputs to the regulatory formula have an independent relationship to workers' compensation take-up above and beyond their role in rate determination, then we would expect to see that hypothetical uncapped base rates would be correlated with take-up after conditioning on the ultimately adopted capped base rates. To test whether this is the case, we estimate specifications of the following form:

$$\ln(y_{jt}) = \alpha + \beta \ln(b_{jt}) + \pi [\ln(\tilde{b}_{j,t}) * \mathbb{1}(\text{capBinding}_{jt})] + \delta_j + \theta_t + \lambda_{jt} + \epsilon_{jt}, \quad (5)$$

where $\ln(\tilde{b}_{j,t})$ represents the natural logarithm of the hypothetical uncapped base rate for classification j in year t , and $\mathbb{1}(\text{capBinding}_{jt})$ indicates that the $\pm 25\%$ cap was binding for the base rate for classification j in year t . If our baseline identification assumption holds, we would expect to see no relationship between workers' compensation take-up and the hypothetical uncapped base rate for classification-years for which the cap was binding (i.e., $\pi = 0$), and the estimated coefficient on the actual base rate (β) is not sensitive to the inclusion of this additional term.

Note that our primary dependent variables (the natural logarithm of covered payroll and the natural logarithm of covered firms) rely solely on the administrative data. As discussed in Section 2.1, there is no administrative data on the universe of eligible firms and eligible payroll within each classification, so it is not possible to estimate demand in terms of the fraction of firms insured or the fraction of payroll insured.³³ Thus, to interpret the estimates as reflecting the demand for insurance, a key assumption is that the eligible population of firms and payroll in each classification is not changing in response to the iden-

³²We focus on base rates two years into the future for this robustness analysis because these base rates should be unrelated to take-up decisions this year, after controlling for this year's base rates. As discussed in the text, these regressions utilize classification-year-level data, where base rates in classification j in year t are the average base rate for policies purchased in that calendar year. Because some base rate updates occur mid-year, the average base rate one year into the future may contain information about base rates relevant for purchase decisions at the end of the current year, and thus base rates two years in advance provide a clearer placebo test.

³³While the Quarterly Census of Employment and Wages (QCEW) reports the total number of firms and payroll in the state of Texas, the workers' compensation classification information is not available for non-participating employers in either public or administrative data.

tifying premium variation.³⁴ While the lack of classification-level data on the eligible population prevents us from testing this directly, we present some supporting evidence for this assumption by utilizing NAICS industry-year-level data on the Texas workforce from the Quarterly Census of Employment and Wages (QCEW). We relate the QCEW industry-year data on industry size to the classification-year-level variation in workers' compensation premiums by constructing a unique weighted crosswalk between workers' compensation classifications and North American Industry Classification System (NAICS) industry codes from the administrative data on all employer workers' compensation insurance policies. Appendix Section D.3 describes this supplemental analysis in detail. The results suggest that neither the aggregate number of firms nor the aggregate number of workers in an industry are responsive to the premium variation within the associated classifications, building confidence in our interpretation of the primary regressions as reflecting the demand for insurance.

4 Demand Estimates

We begin by presenting our baseline demand estimates and the primary robustness analysis, assessing the identification assumption using the three broad strategies described above. We then present additional robustness analysis.

4.1 Baseline Estimates and Primary Robustness Analysis

Table 3 displays the primary demand results. Panel A presents results in terms of the number of covered firms, while Panel B presents results in terms of covered payroll. All specifications include both year fixed effects and industry-occupation classification fixed effects. In each panel, columns (1) and (2) present the results of the main difference-in-differences specifications, without classification-specific time trends (equation 2, column 1) and with classification-specific time trends (equation 3, column 2). Across these specifications, the estimates indicate that an increase in workers' compensation premiums leads to a decline in workers' compensation coverage. Drawing on the estimates in column (1), a 10% increase in premiums leads to a 3.1% decline in the number of covered firms and a 2.8% decline in covered payroll. Based on the 95% confidence interval of these estimates, we can rule out an elasticity less than -0.14 or more than -0.51 in terms of covered firms (and less than -0.05 or more than -0.55 in terms of covered payroll). The results are very similar when including a classification-specific time trend (column 2).

Figure 3 graphically depicts the baseline regressions through binned mean residual plots. The vertical axis displays the mean residuals from a regression of the dependent variable on the controls included in the baseline specification, while the horizontal axis displays mean residuals from a regression of the base

³⁴See Appendix Section D.3 for a more detailed description of the assumption needed to address this econometric challenge and supporting evidence for this assumption.

rate on the controls included in the baseline specification. Each dot in these figures represents 5% of the classification-year observations in the baseline sample, where observations are binned by the values on the horizontal axis. Panel A displays the results for the number of covered firms (analogous to the estimates in Table 3 Panel A column 1), and Panel B displays the results for covered payroll (analogous to the estimates in Table 3 Panel B column 1). These plots confirm the strong relationship between base rates and workers' compensation coverage.

As described above, we investigate the robustness of these demand estimates through estimating a series of alternative specifications. Columns (3) and (4) present the results from estimating equation 4. These alternative specifications include future base rates two years in advance of their implementation. We report the results with classification-specific time trends (column 4) and without classification-specific time trends (column 3). If, contrary to the identification assumption, changes in the algorithm historical cost inputs have an independent effect on workers' compensation take-up, then we would expect to see that changes in workers' compensation take-up pre-date the regulatory rate updates. However, in both of these specifications, the coefficient estimates on the future base rate are not statistically distinguishable from zero, and the estimated coefficients on the contemporary base rate are largely unchanged. Thus, the pattern of these estimates builds confidence in the identification assumption and the robustness of the baseline demand estimates.

Columns (5) and (6) estimate the alternative specification described in equation 5. This alternative specification assesses the plausibility of the identification assumption by exploiting non-linearities in the regulatory update algorithm resulting from the +/- 25% cap on rate adjustments. We report the results with classification-specific time trends (column 6) and without classification-specific time trends (column 5). If, contrary to the baseline identification assumption, the inputs to the regulatory formula have an independent relationship to workers' compensation take-up above and beyond their role in rate determination, then we would expect to see that hypothetical uncapped base rates would be correlated with take-up after conditioning on the ultimately adopted base rates. However, the coefficient estimates on the hypothetical uncapped base rate are small and statistically insignificant, while the coefficient estimates on the actual base rate are largely unaffected. These results support the baseline identification assumption and the robustness of the baseline estimates.

4.2 Additional Robustness Analysis

In addition to the alternative specifications discussed above, we further probe the robustness of the demand estimates with respect to a few additional potential concerns.

Incidence of Premium Changes It is unclear how the burden of increased premiums (or the benefit from reduced premiums) is shared among employers and employees. While we do not estimate the division of surplus between employer and employees, we investigate the robustness of our demand estimates to various assumptions on this division. To the extent that employers shift the cost of workers' compensation premiums onto workers, wages may be partially shifted upward or downward to reflect changes in workers' compensation premiums. While this has no impact on the interpretation of the number of covered firms analysis (Table 3 Panel A), this may affect the interpretation of covered payroll analysis (Table 3 Panel B). Ideally, the demand estimation would utilize a pure quantity measure that is not sensitive to possibly endogenous wage adjustments. While we analyze the number of covered employers, which is a pure quantity measure, we also analyze covered payroll (wages multiplied by hours) which only represents a pure quantity measure if wages are not responsive to the identifying variation in workers' compensation premiums.³⁵ To evaluate the sensitivity of our estimates to potential endogenous wage adjustment, we repeat the covered payroll regression analysis under various assumptions on the fraction of premiums passed through to employees in the form of reduced wages. Specifically, these additional specifications repeat the baseline payroll regression replacing the dependent variable with the natural logarithm of normalized covered payroll: $\ln\left(\frac{\text{payroll}_{jt}}{1-\theta \times \text{premium}_{jt}}\right)$, where premium_{jt} represents the mean premium per dollar of payroll for classification j in year t , and θ represents the fraction of premiums shifted to employees in the form of reduced wages.

Table 4 Panel A displays the results of these additional specifications; column (1) displays the baseline estimates utilizing unadjusted covered payroll for reference, while the remaining columns display the analogous covered payroll regressions under alternative assumptions. The key take-away from these estimates is that regardless of the division of premiums between employers and employees on the margin, increases in classification base rates lead to a decline in covered payroll. Specifically, across the range of possible assumptions on the division of premiums between employees and employers, a 10% increase in classification base rates leads to an estimated decline in normalized covered payroll of 2.3% to 2.8%.³⁶ For the purpose

³⁵Analyzing data from compulsory workers' compensation insurance systems, Gruber and Krueger (1991) find that workers' compensation premium changes in the 1980s in some high-risk industries were largely shifted into wages. As these authors discuss, their findings are consistent with multiple explanations, including that labor supply is more inelastic than labor demand (a typical finding in tax incidence analyses of labor markets) or that employees value workers' compensation coverage changes that were coincident with the premium changes they analyze. Because the present empirical setting is quite different from the setting these authors investigate (for example, in the present empirical setting coverage is optional, all occupational groups are included, etc.), it is not clear whether employers or employees bear the incidence of workers' compensation insurance premium updates. While our baseline approach is to analyze unadjusted covered payroll, the key results are not sensitive to which segment of consumers bears the incidence of workers' compensation insurance premiums, as we discuss further in the text.

³⁶It is not surprising that the results are robust across the different possible divisions of premium updates across employers and employees. To see this, note that the average premium is \$1.79 per \$100 in payroll; thus, a 10% across-the-board increase in premiums would lead to approximately a 0.179% decrease in covered payroll if coverage rates were held fixed, and premium changes were fully shifted onto employees in the form of reduced wages. In other words, any mechanical effect of premiums on wages is expected to be an order of magnitude smaller than the estimated demand elasticity, regardless of the incidence of workers' compensation insurance premiums.

of our discussion of mandates in Section 5, we utilize demand estimates where quantity is measured as unadjusted covered payroll. Further analysis reported in Appendix Section D.6 demonstrates that the main conclusions of Section 5 are unchanged, regardless of the division of premiums between employers and employees.

Treatment of zeros In the baseline estimation displayed in Table 3, the dependent variables we investigate are: the natural logarithm of the number of covered employers and the natural logarithm of covered payroll. Because the natural logarithm of zero is not defined, this analysis excludes the few observations for classifications with no covered payroll in the relevant year. To investigate the robustness of our results with respect to the treatment of these zero observations, we re-estimate the primary specifications replacing the dependent variable with an inverse hyperbolic sine transformation or a $\ln(x + 1)$ transformation of the objects of interest, where x represents either the number of covered employers or total covered payroll. The results of these alternative specifications are displayed in Table 4 Panel B. The estimates from these alternative specifications are very similar in magnitude to and statistically indistinguishable from those obtained from analogous specifications using the baseline dependent variable definitions (displayed in Table 4 Panel B columns 1 and 4).

Level of observation Table 3 presents the baseline estimation, which utilizes classification-year-level observations where the independent variable of interest is the mean classification base rate for policies sold during the relevant year. As discussed in Section 3, some regulatory base rate updates during our analysis period take place mid-year. While data on covered payroll are only available at the classification-year level, the administrative data on covered employers include the precise effective date and end date for each employer workers' compensation policy. Thus, we can repeat the demand estimation in terms of number of covered employers at the classification-month level. Analogous to our baseline classification-year-level analysis, the classification-month analysis utilizes observations that represent all policies originating in a particular month for firms within the relevant classification. Table 4 Panel C reports the results of these alternative specifications along with the baseline estimates for reference. This table displays three versions of these alternative specifications: one version where the dependent variable is defined as $\ln(\text{number of policies originated})$ (excluding classification-month observations for which there are no covered employers), and two alternative versions where the dependent variable is transformed using either a shifted logarithm transformation or inverse hyperbolic sine transformation to include all classification-month observations. The estimates from these alternative specifications are similar in magnitude to and statistically indistinguishable from the baseline estimates utilizing classification-year data. In addition, Appendix Section B presents event study figures utilizing these monthly data on the number of policies originated, where we

zoom in on the months just surrounding a rate update; this additional analysis illustrates that rate updates are unrelated to coverage before implementation and are associated with a change in coverage shortly after an update is implemented.

5 Welfare Framework and Empirical Evidence

Drawing upon the demand estimates and additional administrative cost data, we investigate potential rationales for government intervention to increase coverage. Motivated by the near ubiquity of coverage mandates in the setting of workers' compensation insurance, we begin by discussing the potential rationales for mandating workers' compensation coverage through the lens of a standard welfare framework in insurance settings. We then present empirical evidence on these potential justifications and present counterfactual analysis of the impact of interventions such as a mandate or subsidy. Lastly, we discuss the interpretation of this evidence and potential alternative justifications for mandating coverage.

5.1 Welfare Framework

Classic economic theory provides some potential explanations for why a private market would underprovide insurance relative to the first best, including: adverse selection, market power, and (positive) externalities. Figure 4 illustrates the intuition behind each potential explanation through a graphical example in the spirit of Einav and Finkelstein (2011). Each panel of this figure plots the demand, marginal cost curve, and average cost curve associated with an insurance market, where the horizontal axis represents the fraction with insurance and the vertical axis is measured in dollars. In this graphical illustration (and in the empirical welfare calculations below), we abstract from insurer-level economies of scale and focus on market-level demand and cost curves.³⁷ Following the prior empirical literature on insurance markets, we consider welfare within the insurance market abstracting from general equilibrium adjustments in related markets.³⁸ We interpret the demand curve as representing the value of this insurance to consumers, noting that consumers are jointly comprised of employers and employees in the setting of workers' compensation insurance.³⁹ While the quantitative welfare analysis based on the estimated demand curve relies on this interpretation, we discuss the robustness of our qualitative findings to relaxing this interpretation below.

³⁷As described further below, our data on costs are at the classification-year level, aggregating across all insurers. Our decision to abstract from insurer-level economies of scale is motivated by our desire to connect the welfare framework to objects we can estimate with our data.

³⁸Any counterfactual government intervention to increase coverage (e.g., a subsidy or mandate) may induce general equilibrium adjustments in related markets (e.g., labor markets, the associated markets for goods/services, etc.) that are not captured by this simple partial equilibrium welfare analysis. For this partial equilibrium analysis, we treat the maximum quantity insured as fixed with respect to the back-of-the-envelope welfare counterfactuals we analyze. Though coverage mandates could theoretically cause the quantity of labor employed to fall, prior empirical work finds no employment effects associated with changes in the actuarial value and cost of mandated workers' compensation benefits (Gruber and Krueger (1991)).

³⁹As discussed in Section 2.1, both employers and employees may value workers' compensation insurance relative to the outside option of legal recourse in the event of workplace injury. We interpret the demand curve for insurance as representing the joint valuation of insurance across the relevant marginal consumers (employers and employees).

Motivated by the widespread use of coverage mandates in the setting of workers' compensation insurance, our discussion of the graphical example focuses on the impact of a coverage mandate implemented with full compliance. More broadly, the government may consider a range of policy tools to address underinsurance, including mandates, subsidies, and taxes (e.g., a "pay-or-play" mandate). In the empirical analysis, we consider a broader scope of potential government interventions.

Figure 4 Panel A describes a competitive market that is adversely selected (as depicted in the figure by the downward sloping cost curves). In a perfectly competitive market, firms earn zero profits, and the equilibrium is defined by the intersection of the demand and the average cost curves (point B). The efficient provision of insurance occurs at the quantity described by the intersection of the demand and the marginal cost curve (point A). Thus, in an adversely selected setting, a competitive market under-provides insurance, where the deadweight loss in this figure is described by area ABC. Though adverse selection may justify a mandate, whether a mandate will improve welfare is an empirical question that will depend on the relative magnitude of the welfare gain among those inefficiently uninsured without a mandate (area ABC) and the welfare loss among those efficiently uninsured without a mandate (area ADE).

Figure 4 Panel B describes an imperfectly competitive market with no selection (as depicted in the figure by the flat marginal/average cost curve). Suppose imperfectly competitive firms charge a single price, where μ denotes the profit per unit. The market equilibrium in this figure is depicted by point B. The efficient provision of insurance occurs at the intersection of the demand and the marginal cost curve (point A). Thus, insurance is under-provided when the market is imperfectly competitive, and the welfare loss of this under-provision is depicted in this figure by area ABC. Whether it is welfare-improving to mandate the purchase of insurance will depend on the relative magnitude of the welfare gained for those inefficiently uninsured without a mandate (area ABC) and the welfare lost for those efficiently uninsured without a mandate (area ADE).

Figure 4 Panel C describes a market with no selection and a positive externality associated with insurance. For example, a positive externality associated with insurance arises if some of the costs covered by the insurer would have been paid by external parties outside of the consumers/producers in the absence of insurance. Panel C illustrates the case of a constant positive externality, where the social marginal cost (SMC) curve is represented as a vertical shift downward relative to the private marginal cost (PMC) curve. In this case, the efficient provision of insurance occurs at the point at which the SMC curve intersects the demand curve (point A). However, a competitive private market would provide insurance at the point at which the PMC curve intersects the demand curve (point B). Thus, a competitive private market would under-provide insurance, where the welfare loss of this under-provision is depicted by area ABC. In the case of a positive externality, whether a mandate will improve welfare is an empirical question that will de-

pend on the relative magnitude of the welfare gain among those inefficiently uninsured without a mandate (area ABC) and the welfare loss among those efficiently uninsured without a mandate (area ADE).

There are a few key take-aways from this simple graphical example. First, adverse selection, market power, and positive externalities may each contribute to the under-provision of insurance relative to the first best. Thus, either adverse selection, market power, or positive externalities are potential justifications for mandating coverage. Second, the existence of adverse selection, market power, and/or positive externalities is not sufficient for justifying a coverage mandate. Whether a mandate will improve welfare will depend on the empirical demand and cost curves.

5.2 Empirical Evidence

5.2.1 Selection

Next, we look to the data for evidence relating to these potential justifications. Leveraging the same price variation used to estimate demand, we test for the presence of adverse selection following the approach outlined by Einav and Finkelstein (2011) and Einav, Finkelstein and Cullen (2010). Specifically, we estimate the baseline empirical specification outlined in equation 2, replacing the dependent variable with applicable measures of costs. In this analysis, let us assume that marginal costs are monotonic in the quantity insured, so that the sign of the relationship between average costs and quantity is informative as to the degree of selection (as measured by the sign of the slope of the marginal cost curve). To operationalize this test for selection, we pair our primary data with additional administrative data on claim costs by classification and policy origination year (described in detail in Section 2.2).

Table 5 Panel A reports the results of this analysis. Each column corresponds to a separate regression, where the corresponding dependent variable is indicated at the top of the column. The even columns display the results from estimating specifications with classification-specific time trends, while the odd columns display the results from specifications that exclude these additional controls. One challenge with estimating selection is that some classifications have no claims in some years, so the natural logarithm of the average cost for such observations is undefined. We confront this issue by estimating specifications on various samples. Table 5 Panel A presents the results for the baseline specifications which use the baseline demand estimation sample and an inverse hyperbolic sine transformation to include classification-year observations with zero costs. Table 6 presents robustness analysis investigating alternative specifications utilizing a $\ln(x)$ transformation or a $\ln(x + 1)$ transformation. The analysis and discussion below focuses on the baseline estimates in Table 5 Panel A, where we interpret the inverse hyperbolic sine transformed variables as an approximation of the natural logarithm. We obtain qualitatively similar findings utilizing the alternative specifications in Table 6.

Because insurers in this setting are allowed to risk-adjust premiums (through a multiplicative experience rating modifier, as described in Section 2.1), the welfare-relevant measure of selection depends on whether risk-adjusted insurer expected costs are related to the premium variation. Table 5 Panel A columns (1) and (2) report the results relating a feasible proxy for risk-adjusted insurer expected costs—ex post realized claim costs per risk-adjusted payroll—to the base rate variation. The coefficient estimates on the base rate are both quantitatively small and statistically indistinguishable from zero. Scaling these cost estimates by the appropriate demand estimates in terms of risk-adjusted payroll (from Table 5 Panel A columns 3 and 4), the estimates suggest that a 1% increase in risk-adjusted covered payroll induces a 0.04% increase in mean claim costs [95% CI -0.64 to 0.72] (based on Table 5 Panel A columns 1 and 3) or a 0.13% decrease in mean claim costs [95% CI -0.70 to 0.96] (based on Table 5 Panel A columns 2 and 4).⁴⁰

To see the magnitude of the point estimates graphically, Appendix Figure A4 Panels A and B plot the implied demand and cost curves based on the risk-adjusted cost elasticity estimate, market-level aggregate data (on premiums, costs, and quantity), and a linear or constant elasticity extrapolation, respectively.⁴¹ This figure illustrates that the implied risk-adjusted marginal/average costs based on the point estimates in Table 5 Panel A are very close to constant in the quantity insured. Further, Table 5 Panel B displays the implied welfare cost of selection using the implied cost curves based on extrapolating from these statistically insignificant point estimates. The point estimates from Panel A specification (1) based on a linear extrapolation indicate an implied welfare cost from over-insurance due to advantageous selection of 0.04 cents per \$100 of risk-adjusted payroll or approximately \$0.20 annually for a worker with annual earnings of \$50K (roughly the mean annual earnings); the point estimates from Panel A specification (2) based on a linear extrapolation indicate an implied welfare cost from under-insurance due to adverse selection of 0.34 cents per \$100 of risk-adjusted payroll or approximately \$1.70 annually for a worker with annual earnings of \$50K. Overall, the calculations in Table 5 Panel B illustrate that the implied welfare cost of selection is economically small and statistically indistinguishable from zero.

Based on the estimates above, there is no evidence of adverse selection in this setting. We probe the robustness of this qualitative finding in a variety of ways. First, we estimate additional specifications with alternative transformations of the cost measure, as described above. The results reported in Table 6 illustrate that these additional specifications yield similar findings. Second, Appendix Table A5 presents additional specifications utilizing several alternative measures of claims: overall costs (the baseline measure), medical costs, income benefit costs, total claims, serious claims, non-serious claims, and “medical only” claims (i.e., claims with no income benefits). Across all the specifications, the coefficient estimates on the base rate are

⁴⁰See Appendix Section C and Appendix Table A7 for more detail on these estimates. The reported confidence intervals are based on bootstrapped standard errors (clustered at the classification level) employing 1,000 randomly drawn bootstrap samples.

⁴¹For a more detailed explanation of the welfare calculations, see Section 5.2.2 below and Appendix Section C.

small and statistically indistinguishable from zero. Lastly, Appendix Table A6 displays additional analysis where we leverage non-linearities in the regulatory update formula to provide further evidence on the robustness of the baseline selection analysis and the plausibility of the associated identification assumption.

The key take-away from this analysis is that we find no evidence of adverse selection in this setting. This finding is robust to the inclusion/exclusion of classification-specific time trends (evidenced by the similarity of results across the odd and even columns of Table 5), different methods to deal with zero cost observations (e.g., alternative specifications reported in Table 6), alternative specifications that assess the identification assumption (e.g., alternative specifications in Appendix Table A6), and alternative measures of claims (e.g., the alternative specifications reported in Appendix Table A5).⁴² It is important to note that workers' compensation insurance is a much more heavily risk-adjusted market than many other insurance markets (e.g., individual health insurance, individual annuities, etc.). Thus, one possible explanation for the lack of evidence of adverse selection in this setting is that the extensive risk adjustment in this context—through industry-occupational rating and extensive experience rating—may be effective at addressing selection.

5.2.2 Market Power

Next, we turn to another potential justification for government intervention to increase insurance coverage: market power. As described in Section 2.1, like many other states, the Texas state legislature created a quasi-public insurer to compete with private insurers in the state workers' compensation market. In 1991, the state legislature created Texas Mutual Insurance Company, which currently serves 40% of the workers' compensation insurance market. Perhaps partially due to the large presence of the quasi-public Texas Mutual Insurance Company, the profit margins in the market are fairly low based on the reported mean combined insurer loss ratio of 88%, representing the fraction of premiums collected that are paid out in costs.

To investigate the potential quantitative importance of market power, we conduct back-of-the-envelope welfare calculations utilizing demand curves based on our demand elasticity estimates along with aggregate administrative data reported to the regulator on premiums and market-level insurer combined loss ratios.⁴³ Abstracting from fixed costs, we use the mean reported loss ratio and mean premiums over our time period to back out the implied profit margin (and thus mean costs). Note that this broader market-level measure of costs based on insurer-reported combined loss ratios goes beyond claim costs, as it accounts for the timing of incurred losses/premiums and administrative costs. We then employ a few parametric assumptions to extrapolate from our estimated demand elasticity and conduct several back-

⁴²Appendix Tables A8 and A9 display further robustness analysis illustrating that the key findings are unchanged when incorporating alternative incidence assumptions.

⁴³See Choi (2011).

of-the-envelope calculations projecting welfare under various hypothetical government interventions. As described in Section 2.1, insurers in this market only choose the overall price level; relative prices across industry-occupation groups and across experience-rating groups are fixed by regulation. Thus, for the purpose of this calculation, we model this as a single market where we measure the quantity insured as the fraction of risk-adjusted payroll that is insured. To obtain the aggregate risk-adjusted payroll in the population, we extrapolate based on the estimated relationship between the mean experience rating modifier and the quantity of payroll insured.⁴⁴ To measure the universe of possible payroll insured, we obtain aggregate Texas payroll data from the Quarterly Census of Employment and Wages (QCEW). Specifically, we define the relevant population for this market to be all private sector payroll in the state of Texas, excluding the fraction of payroll attributable to certified self-insured firms, as described further in Section 2.1 and Appendix D.2. Based on the empirical analysis described above which finds no evidence of selection, we do these calculations under the assumption of no selection, meaning that there is a flat market-level average/marginal (risk-adjusted) cost curve.⁴⁵ Appendix Table A7 illustrates that the welfare analysis is very similar if instead we employ the small (and statistically indistinguishable from zero) risk-adjusted cost elasticity estimates reported in Table 5.⁴⁶ In the following calculations, we ignore potential externalities and revisit the role of externalities further in Section 5.2.3 below.

Table 7 Panel A displays the welfare calculations, while Panel B reports the underlying point estimates and corresponding demand curve. The counterfactuals are conducted using two alternative parametric extrapolations from the estimated demand elasticity: linear demand (displayed in columns 1 and 2) and constant elasticity demand (displayed in columns 3 and 4). In addition to the reported estimates in Table 7, Figure 5 Panel A displays the linear and constant elasticity demand curves graphically, along with the mean premiums and costs. The figure indicates the observed quantity insured and the optimal quantity insured. Dashed vertical reference lines indicate the range of the identifying variation: the implied range in quantity based on a constant elasticity specification and the observed range of premium variation spanning a +/- 25% price change. Note that the identifying variation spans the relevant range of quantities for the analysis comparing the observed quantity insured to the optimal quantity insured, thus the fitted linear and constant elasticity demand curves closely correspond to one another in this range. The counterfactuals

⁴⁴See Appendix Section C for more details.

⁴⁵While the selection analysis in Table 5 utilizes claim cost data (available at the classification-year level), the welfare calculations here utilize more comprehensive aggregate cost data inclusive of both claim costs and administrative costs and accounting for the timing of incurred premiums and losses. To the extent that administrative costs can be thought of as a constant loading factor per unit of payroll, the cost elasticities estimated in Table 5 are informative about the degree of selection using a more comprehensive definition of costs.

⁴⁶This robustness is not surprising given the small magnitude of the risk-adjusted cost elasticity estimates. As can be seen in Appendix Figure A4, the risk-adjusted cost elasticity estimates imply nearly flat marginal and average cost curves. Because the implied empirical cost curves are so close to horizontal (and we cannot statistically reject that they are indeed horizontal), we assume marginal/average costs are constant in the baseline welfare analysis. Appendix Table A7 illustrates that the welfare analysis is very similar if instead we employ the risk-adjusted cost elasticity estimates reported in Table 5.

related to an insurance mandate are outside of the range of the identifying variation and thus will naturally be more sensitive to the chosen functional form for demand.

Table 7 reports welfare measured in dollars per \$100 of risk-adjusted payroll. In addition, we also report two scaled measures of welfare to ease interpretation. The table reports welfare as a percent of the mean cost of the insured (one measure of the size of the market). To contextualize the relative estimates in terms of annual dollars, the table also reports welfare measures scaled by \$50K, approximately the mean annual earnings for Texas workers in 2011.⁴⁷ Note that this is simply a convenient way to contextualize the magnitude of the estimates rather than a statement regarding the incidence of workers' compensation surplus among employees/employers. As discussed earlier, the workers' compensation insurance consumer can be thought of as some combination of the employee and the employer. Because nothing about our data and variation allows us to decompose the division of surplus between employees and employers, we abstract from this distinction throughout and conduct revealed preference welfare analysis by interpreting the demand curve as representing the value of insurance to workers' compensation consumers, where consumers are some combination of employers and employees.

First, let us consider the optimal allocation in this market. Note that in the absence of selection, a perfectly competitive market yields the optimal allocation. According to our estimates, the optimal allocation in this setting is attained when 73.4% of risk-adjusted payroll is insured in the linear specification (73.7% in the constant elasticity extrapolation), an almost 4 percentage point increase over the status quo quantity insured of 70%.⁴⁸ Focusing on the linear demand specification, relative to the imperfectly competitive status quo, moving to the perfectly competitive optimal allocation would increase welfare by \$0.0041 per \$100 of risk-adjusted payroll, with a 95% confidence interval allowing us to rule out an increase less than \$0.0019 or more than \$0.0063 per \$100 of risk-adjusted payroll. Scaling this by \$50K (roughly the mean annual earnings), these estimates imply a welfare increase of \$2.03 annually per worker in a perfectly competitive optimum relative to the status quo. The welfare associated with moving from the status quo to the optimum is approximately 0.26% of the mean insured cost in this market. We obtain very similar welfare estimates in the alternative specification with constant elasticity demand (reported in columns 3 and 4).

Overall, the small magnitude of these estimates indicates that there is very little welfare at stake for a move from the imperfectly competitive status quo to the perfectly competitive optimum. Put differently, further government intervention to increase enrollment in this market through subsidies would at best generate a small amount of surplus (an increase of approximately \$2.03 per worker annually) and at worst be

⁴⁷Based on the authors' calculations, the mean earnings of Texas workers in the QCEW data for 2011 is roughly \$50K.

⁴⁸Pooling the data over our sample period, 73% of private industry payroll is insured (as reported in Table 2), and 70% of risk-adjusted private industry payroll is insured. As discussed above, we obtain risk-adjusted payroll using data on experience rating and extrapolating from the estimated reduced form relationship between the mean experience rating factor and base rates. See Appendix Section C for more details.

welfare-detrimental. For instance, let us consider a government subsidy to move the market from the status quo to the optimal allocation. If there is no deadweight loss of taxation to fund this subsidy, the government could obtain the optimal allocation for a net welfare increase of \$0.004 per \$100 of risk-adjusted payroll, or approximately \$2.03 per worker annually. However, more realistically, there is likely some deadweight loss associated with raising tax revenue to cover the cost of the subsidy. If we assume the marginal deadweight loss associated with taxation is 25% and the subsidy is fully passed-through to consumers, then the subsidy needed to implement the optimal allocation would reduce welfare relative to the status quo. Based on estimates from either demand specification, welfare would decline by \$0.036 per \$100 of risk-adjusted payroll, or approximately \$18 per worker annually, if such a subsidy to support the optimal allocation were adopted relative to the status quo. Thus, such a subsidy would not improve efficiency after accounting for the deadweight loss of taxation to fund the subsidy. In fact, a subsidy to implement the optimal allocation will be welfare-detrimental provided that the marginal deadweight loss associated with taxation per dollar of subsidy is greater than 3%. Overall, this evidence suggests that market power does not present a compelling justification for government intervention to further increase insurance enrollment in this setting.

The most common form of government intervention in the setting of workers' compensation insurance is a coarse instrument: an insurance coverage mandate. As discussed earlier, all states excluding Texas currently mandate that employers provide workers' compensation insurance. Motivated by the prevalence of workers' compensation mandates, we next consider a hypothetical insurance mandate in the Texas workers' compensation insurance market. Because this counterfactual is further outside of the variation we use to estimate demand, naturally these estimates will be more sensitive to the parametric assumptions regarding the demand curve, and one should be more cautious in interpreting the results of this counterfactual. With that caveat in mind, our estimates indicate that an insurance mandate would substantially decrease welfare. The precise magnitude of the reduction in welfare relative to the status quo depends on the specification: the linear specification indicates a decline of \$0.21 per \$100 of risk-adjusted payroll, while the constant elasticity specification indicates a decline of \$0.12 per \$100 of risk-adjusted payroll. Scaling this by \$50K, these estimates imply that a mandate would decrease welfare by approximately \$103 annually per worker based on the linear specification or \$59 annually per worker based on the constant elasticity specification. This welfare decrease is large relative to the mean cost insured within this market: the welfare loss from a mandate amounts to 13.2% of the mean cost based on the linear specification and 7.5% of the mean cost based on the constant elasticity specification.

5.2.3 Externalities

Next we turn to a remaining traditional market failure rationale for government intervention to expand coverage: positive externalities. For example, positive externalities may arise in an insurance market if some of the costs covered by insurance would have fallen on external parties (outside the relevant consumers and producers) in the absence of insurance. Under the assumption that consumer choice in the workers' compensation market jointly reflects the preferences of employers and their employees, an externality to the workers' compensation insurance purchase decision would be an external cost borne by parties other than the insurer, the employer, or the workers.⁴⁹ In the setting of workers' compensation insurance, it is plausible that there are positive externalities that accrue to formal or informal health insurers because of the presence of workers' compensation coverage.⁵⁰ Approximately 60% of workers' compensation claim costs are due to medical bills associated with workplace injury. If an individual has workers' compensation coverage, the workers' compensation insurer is the first-payer for these medical costs. In the absence of workers' compensation insurance, external parties such as health insurers, hospitals, or other sources of charity care may pick up the bill for some of the costs that would have otherwise been covered under workers' compensation insurance. Thus, if external parties such as health insurers bear some of the costs that would otherwise be covered by workers' compensation insurance and there are no adjustments to make consumers internalize these costs, there is an externality in this market: workers' compensation insurers and consumers do not account for the fact that workers' compensation coverage can drive down the costs of formal or informal health insurers.

While prior studies have shown that health insurance expansions lead to reductions in workers' compensation insurance medical expenditures (Dillender (2015), Bronchetti and McInerney (2017)), there is no evidence from the prior literature to guide us in assessing how workers' compensation insurance expansions affect health care expenditures borne by external parties. Further, data are not available to quantify this externality using our variation. Thus, we are left to speculate about the importance of this potential externality.⁵¹ While this potential externality may exist, there are several reasons why the externality is likely quantitatively small in practice. First, the externality is mitigated to the extent that health insurers

⁴⁹We also note that, if the parties of the workers' compensation purchase decision include insurers, workers, and employers, externalities would not include uncompensated losses that are borne by workers or their families. Rather, externalities would derive from costs borne by other third parties not involved in the workers' compensation purchase decision, for example, private health insurers, government health insurance programs, and hospitals that provide charity care to the uninsured.

⁵⁰Externalities across different types of insurance products can arise in several types of settings. For instance, an externality can arise when two types of insurance products may be eligible to pay for the same costs (such as medical costs associated with workplace injury that could be eligible for payment through either health insurance or workers' compensation insurance). Alternatively, externalities across insurers can arise if insurance products cover complementary costs, as is the case with Medicare and private Medigap coverage (Cabral and Mahoney, 2018).

⁵¹Regarding a seemingly related phenomenon, many have speculated that the increase in workers' compensation claims on Mondays reflects a shifting of uninsured medical expenses for off-the-job injuries to workers' compensation insurance. However, Card and McCall (1996) analyze the "first reports" of injuries filed with the Minnesota Department of Labor and find that employees with a low probability of medical coverage are no more likely to report Monday injuries than others.

can successfully recover medical costs associated with workplace injury through suing liable employers. Second, this potential externality is also limited by the extent to which employer health insurance costs reflect workers' compensation insurance coverage (e.g., through actuarial adjustments to health insurance premiums, through experience rating for employer-provided health insurance, through self-insurance of employee health coverage, etc.). Given these extensive mechanisms to internalize this externality in the setting of employer-provided health insurance, this externality may be most prevalent among those with health insurance through other sources (e.g., a spouse's employer, Medicaid, charity care, etc.). Third, the externality is mitigated to the extent that injured employees themselves pay their own medical bills out-of-pocket due to incomplete health insurance coverage. Fourth, this externality may be quantitatively small if many of the medical expenditures within the workers' compensation system would not have occurred in the absence of workers' compensation. Some medical costs within workers' compensation are specific to that setting and are irrelevant outside of workers' compensation insurance. For instance, workers' compensation claims require a medical exam to assess the scope of the injury and the employee's work limitations. More generally, moral hazard responses may lead individuals to claim medical expenditures under workers' compensation that would not have occurred in the absence of this coverage.

While data limitations prevent us from estimating this externality in this setting, we assess the potential quantitative importance of externalities on formal and informal health insurers through conservative back-of-the-envelope calculations. In these calculations, we are interested in the potential externality rationale for government intervention to increase coverage. While there may be other externalities associated with workers' compensation coverage, there is almost no research on this topic, and the limited research that does exist suggests that some other natural external parties are either unaffected or potentially adversely affected by workers' compensation coverage.⁵² In the absence of evidence of other positive externalities, we focus on the external impacts of workers' compensation coverage on formal and informal health insurers as the most plausible source of positive externalities in this setting.

We repeat the welfare analysis above under various conservative assumptions on the magnitude of the externality on formal or informal health insurers. Specifically, we model this externality as a constant shift downward in the social marginal cost curve relative to the private marginal cost curve faced by workers' compensation insurers. In these calculations, we assume that health insurers do not make actuarial ad-

⁵²For instance, workers' compensation insurance may generate externalities for providers of public or private disability insurance. However, because workers' compensation coverage is primarily aimed at providing temporary benefits while disability insurance covers longer spells after a waiting period, the direction of the externality is ex ante theoretically ambiguous. Further, prior work has shown that the tightening of workers' compensation insurance programs does not appear to be associated with increased disability insurance claims (McInerney and Simon (2012)). Aside from work on potential externalities on disability insurance, we know of no evidence of other externalities associated with workers' compensation coverage, and we note this is an important area for future research. In the absence of any such evidence, we focus on broadly defined health insurers as the most likely source of positive externalities in this setting.

justments to premiums based on workers' compensation coverage, and we assume that health insurance (broadly defined as being inclusive of formal health insurance and charity care) provides 70% actuarial value coverage of medical costs, while workers' compensation provides 100% actuarial value coverage of medical costs.⁵³

Table 8 reports the results of these additional calculations for both linear and constant elasticity demand specifications. For reference, the baseline results with no externality are displayed in columns 1 and 2 for the linear specification and columns 9 and 10 for the constant elasticity specification. The remaining columns display the results when repeating the welfare calculations assuming that 25%, 50%, or 75% of workers' compensation medical claim costs would have otherwise occurred and been eligible for coverage through a formal or informal health insurer. Figure 5 Panel B graphically depicts these back-of-the-envelope welfare calculations using both the fitted linear and constant elasticity demand curves.

Inspecting Table 8, we see that the optimal quantity insured increases modestly with the magnitude of the externality on health insurers, but in no scenario does the optimal quantity insured approach full insurance. Between 73% and 74% of risk-adjusted payroll would be optimally insured if there were no externality, while the optimally insured increases to 75% based on a linear extrapolation (or 76% constant elasticity extrapolation) if a quarter of the medical claim costs would have been eligible for payment by external health insurers. In the extreme case (and in our view unrealistic case) where 75% of medical claim costs would have been eligible for payment by external health insurers, we see that the optimal insured only increases to 79% under the linear specification (or 81% in the constant elasticity specification). We note that this calculation—under the more extreme 75% assumption—results in a projected optimal quantity insured at the edge of the identifying variation, so more caution should be exercised when interpreting these estimates. While the precise welfare estimates for the counterfactuals depend on the size of the externality, the main lessons of this analysis are robust across the specifications. Specifically, regardless of which externality assumption is employed, the analysis suggests that: (i) mandating workers' compensation coverage would not increase welfare relative to the status quo, (ii) the optimal allocation provides only a small increase in welfare relative to the status quo, and (iii) a subsidy to support the optimal allocation funded by a tax with marginal deadweight loss of 25% would decrease welfare relative to the status quo. Overall, these calculations suggest that externalities may not provide a compelling justification for further government intervention to increase coverage.

⁵³We make the approximation that formal and informal health insurance provides 70% actuarial value coverage; this is consistent with recent evidence that the uninsured pay in the range of 20% to 35% of their cost of care (e.g., Coughlin et al. (2014), Finkelstein, Hendren and Luttmer (2018)).

5.3 Discussion

The key take-away from the analysis above is that the classic market failures examined here—adverse selection, market power, and externalities—do not appear to justify further government intervention to expand coverage through a subsidy or mandate in the setting of Texas workers' compensation insurance. Below, we discuss two possible interpretations for these findings.

One interpretation of the evidence above is that there is no rationale for mandating coverage in this setting. If we interpret the estimated demand curve as representing the value of this insurance to consumers, some segment of the population is optimally uninsured as their willingness-to-pay for coverage lies below the cost of providing this coverage. Thus, one interpretation of the findings above is that indeed some segment of the population is optimally outside the workers' compensation system and that government intervention to expand coverage in this setting would harm welfare. It is certainly plausible that some segment of risk averse consumers (jointly, employers and employees) may be optimally outside the workers' compensation insurance system. For instance, consumers may not value workers' compensation coverage above the cost of providing this coverage because of factors such as moral hazard and/or administrative costs. Moral hazard is a plausible explanation for the low valuations in this setting, as a large body of prior research (e.g., Krueger (1990*b*), Krueger (1990*a*), Meyer, Viscusi and Durbin (1995)) has suggested that there may be substantial scope for moral hazard in workers' compensation insurance.⁵⁴ Consistent with the notion that some workers may value workers' compensation insurance below the cost of this coverage because of moral hazard, Bronchetti (2012) analyzes the drop in consumption experienced by workers upon injury and uses calibrations to illustrate that typical workers' compensation insurance replacement rates are more generous than would be optimal under a range of plausible risk aversion values and moral hazard elasticities. As discussed above, the welfare analysis accounts for administrative costs, as the level of costs are inferred from combining administrative premium data and market-level reported combined insurer loss ratios. Thus, administrative costs may also be a contributing factor to the estimated low valuations relative to costs in the analysis above. It is also important to emphasize that this is not a classic vertically differentiated insurance setting where a consumer either has insurance or no insurance for some underlying risk. Instead, this is a setting with horizontally differentiated options for recourse for work-related injuries: workers' compensation insurance or legal recourse. In any setting with horizontally differentiated options, there is not necessarily an *ex ante* reason to believe that consumers should all prefer one option

⁵⁴Because all of the prior literature examining the elasticity of claims with respect to the benefit level has investigated changes within mandated workers' compensation systems, none of these studies provide the elasticity of interest in this setting: how do the costs from work-related injuries (i.e., lost wages and medical costs) respond to the existence of workers' compensation insurance? Unfortunately, comparable data on workplace injuries is not available for covered and uncovered firms, so we are unable to estimate moral hazard using our variation.

over the other, even beyond considerations such as moral hazard and administrative costs.

Another interpretation of the findings above is that there may still exist alternative justifications for mandating coverage if the estimated demand curve does not fully capture the value of this insurance to consumers (jointly employers and employees in this setting). There are a few potential reasons why the demand curve may not fully reflect consumer valuations in this setting. First, consumers in this setting may have limited information or be subject to behavioral biases that lead them to inappropriately weigh risks associated with workplace injury within the workers' compensation system and outside of the system.⁵⁵ If consumers inappropriately value this coverage, traditional welfare analysis using demand curves may not be appropriate, as revealed preference may not reliably indicate the true valuation of insurance in such cases. Note that this concern is not particular to this setting. Any study that uses demand in welfare analysis must confront the fact that behavioral biases may influence demand in such a way that the distribution of true consumer valuations departs from the estimated demand curve. Second, there may be labor market frictions (e.g., worker mobility frictions, bargaining frictions between employers and employees, informational asymmetries between workers and firms, etc.) that lead employer workers' compensation insurance purchase decisions to not reflect the joint valuation of this insurance to employers and employees.

While the precise welfare estimates discussed above are not directly applicable if the demand curve does not reflect consumer valuations of insurance, it is important to note that many of the broader conclusions from the analysis above are equally applicable. In particular, regardless of whether we can interpret the demand curve as representing consumer valuations in this setting, the cost estimates discussed above indicate there is no evidence of adverse selection in this setting, and thus adverse selection may not be a compelling justification for expanding coverage through a subsidy or mandate. Additionally, given the small observed markups in this setting and the limited quantitative importance of externalities, market power and externalities are unlikely justifications for a government coverage mandate in this setting even if the demand curve does not accurately reflect consumer valuations. Of course, if consumer valuations for insurance systematically exceed those implied by the estimated demand curve, the underlying reasons for the departure between the demand curve and consumer valuations— for example, underlying behavioral biases or labor market frictions—may themselves provide an alternative justification for government inter-

⁵⁵One potentially important aspect of consumer information is the extent to which workers understand the outside option of legal recourse. Workers might have inaccurate beliefs about options for pursuing compensation for injuries through the tort system in contrast to workers' compensation. One example of a subtle issue that might not be salient to workers before an injury occurs is that a worker might have difficulty recovering costs through the tort system for injuries at a small employer with too few assets. That is, small employers might have de facto limited legal liability in the tort system. This sort of misinformation could lead workers to undervalue workers' compensation insurance. On the other hand, some workers may not be aware that they have options to recover damages through the tort system when working for a non-participating employer or that they forgo these options when working at a participating employer, which could lead some workers to inaccurately overvalue workers' compensation insurance. As with other behavioral biases or sources of limited consumer information, we are not aware of evidence on the extent to which workers understand or account for the implications of non-participation.

vention in the form of a subsidy or mandate.⁵⁶ We are aware of no research on the importance of limited consumer information and behavioral biases in the setting of workers' compensation insurance. Prior studies have found that mean wages respond sharply to changes in the actuarial value of mandated workers' compensation benefits (Gruber and Krueger (1991)) and the establishment of workers' compensation systems (Fishback and Kantor (1995)), suggesting that labor market frictions may be limited on average.⁵⁷ Our data and variation do not allow us to explore such alternative justifications, and thus we cannot assess the potential quantitative importance of these potential alternative rationales in this setting. We note this is an important area for future research.

While typical insurance market failure rationale for mandating coverage do not appear to be particularly compelling in this setting, it is important to note that consumers may highly value the option to buy workers' compensation from the regulated voluntary market. Recall that a large segment of consumers (jointly employees and employers) appear to value workers' compensation coverage more than the mean cost of providing this coverage: approximately 70% of risk-adjusted payroll is covered by workers' compensation insurance in the absence of a mandate. Moreover, based on our modest estimated demand elasticity, many of these consumers are not close to indifferent between purchasing or not purchasing this coverage at the market price. Thus, while the revealed preference welfare analysis indicates that some consumers may be optimally uninsured, the estimates suggest that some consumers derive significant surplus from this coverage and that on average consumers appear to value workers' compensation insurance more than the cost of providing this coverage. For instance, if we extrapolate based on a parametric linear demand curve, the estimates suggest that on average consumers value workers' compensation coverage at 166% of the mean cost of providing this coverage.⁵⁸ In summary, the revealed preference welfare analysis suggests that mandated workers' compensation insurance may improve welfare over the absence of any workers' compensation insurance system, but a coverage mandate may reduce welfare relative to the existing regulated, voluntary market for workers' compensation insurance.⁵⁹

⁵⁶The National Commission on State Workmen's Compensation Laws (1972) endorsed universal coverage of workers as one of the four basic objectives of workers' compensation policy. Among other arguments, the National Commission cited labor market imperfections and the bounded rationality of workers as justifications for a coverage mandate. "For several reasons we do not find the freedom-to-contract plea convincing. A classic point against that plea is that employees do not have equal bargaining power with their employers, particularly when employees are not unionized. An even more compelling reason for mandatory insurance is that the task of selecting a job is complex. Most workers are unlikely to assess properly the probabilities of being exposed to work-related impairments. Often employees and employers are contemptuous of the risks they assume. We believe that society can appropriately mandate workmen's compensation coverage as a way of insuring that those injured at work do not become destitute." (National Commission on State Workmen's Compensation Laws, 1972, pg. 36).

⁵⁷While these prior studies suggest that mean wages respond to changes in the actuarial value of mandated workers' compensation benefits (Gruber and Krueger (1991)) and the establishment of workers' compensation systems (Fishback and Kantor (1995)), there could be heterogeneity in responses across firms and workers. Our estimates suggest substantial heterogeneity in the value of workers' compensation coverage across firms and workers.

⁵⁸Estimating the mean value of this coverage requires extrapolating far from the identifying variation, and thus appropriate caution should be used in interpreting this estimate. For a constant elasticity specification, the willingness-to-pay is not bounded for quantities near zero, so the mean implied willingness-to-pay is divergent over (0,1). In a constant elasticity specification, the mean willingness-to-pay is an order of magnitude larger than in a linear specification over the truncated interval (0.01,1).

⁵⁹In this way, our results connect with those of prior studies on workers' compensation that analyze the incidence of changes in the

6 Conclusion

This paper provides the first estimates of the demand for workers' compensation insurance and evidence on the potential rationale behind government intervention to increase coverage through subsidies or a mandate. To estimate the demand for workers' compensation insurance, we leverage the unique voluntary feature of the Texas workers' compensation insurance system and policy-induced variation in premiums paired with administrative data on the Texas workers' compensation insurance market. Though there is no coverage mandate in this setting, voluntary participation is high: approximately 66% of private sector employers participate in the workers' compensation insurance system representing roughly 78% of private sector employees. Utilizing regulatory updates to relative premiums across industry-occupation classifications, the difference-in-differences analysis reveals that the demand for coverage is price-sensitive: a 10% increase in premiums leads to approximately a 3% decline in covered payroll and the number of covered firms. Utilizing these demand estimates and data on costs among the insured, we analyze potential rationales for an insurance coverage mandate in this setting. Our analysis suggests that classic insurance market failures—such as adverse selection, market power, and externalities—do not appear to justify further government intervention to expand coverage through a subsidy or mandate in this setting. Importantly, we note that our empirical strategy does not allow us to rule out (or rule in) alternative justifications for a coverage mandate, such as behavioral biases or labor market frictions, that go beyond the classic market failure rationale we investigate in the revealed preference welfare analysis. More broadly, this evidence may inform the ongoing policy debate among states seeking to repeal their coverage mandates in favor of a regulated voluntary workers' compensation market. For instance, one implication of our findings is that such debates may more productively focus on whether behavioral biases or labor market frictions could justify mandating coverage.

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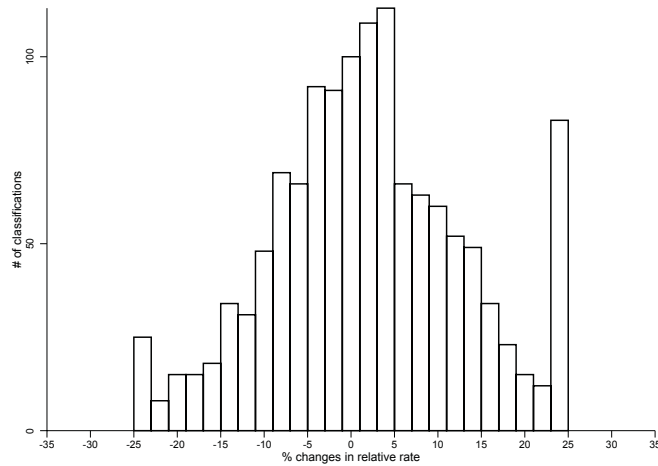
actuarial value of mandated workers' compensation benefits (Gruber and Krueger (1991)) and the incidence of the establishment of workers' compensation systems (Fishback and Kantor (1995)). Gruber and Krueger (1991) reveal evidence suggesting that the cost of mandated workers' compensation coverage expansions are on average passed-through to employees nearly dollar-for-dollar within select high-risk occupations. Fishback and Kantor (1995) show that the establishment of workers' compensation systems (which were often voluntary rather than mandated) lead to substantial wage offsets in select occupations. While there are many differences between the present setting and the setting of these prior studies, our results in this setting suggest that either a voluntary or mandated workers' compensation insurance system generates positive net surplus relative to no workers' compensation insurance, indicating that there may be scope to reduce mean employee wages to offset the costs of coverage associated with a voluntary or mandated workers' compensation insurance system. Importantly, our revealed preference welfare analysis suggests there is substantial heterogeneity in the valuation of this coverage across firms and workers.

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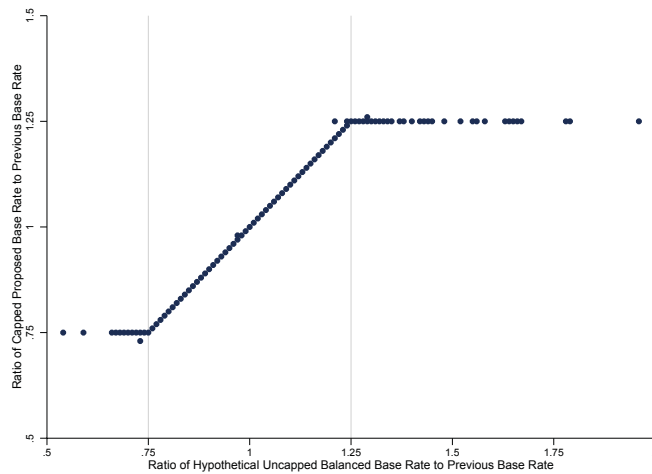
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Figure 1: Histogram of Base Rate Updates



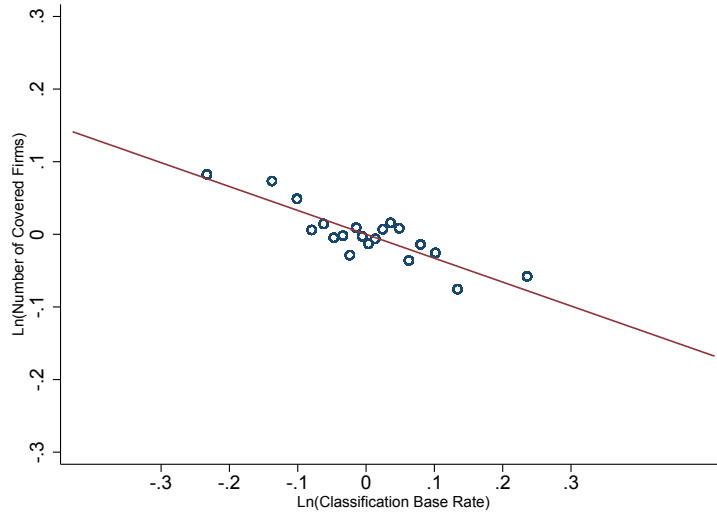
Notes: The above histogram describes the proposed updates to the base rates (before any across-the-board adjustments) polling across all the updates in the sample period: 2006-2011. Following the definitions in Appendix Section A, the percent change here is defined as: $\frac{proRel_j - crtRel_j}{crtRel_j}$ for classification j . Histograms by update year for the proposed updates are depicted in Appendix Figure A1, and the updates in the final implemented base rates (after across-the-board adjustments) are depicted in Appendix Figure A2.

Figure 2: Base Rate Updates: Proposed Capped Rates and Hypothetical Uncapped Rates

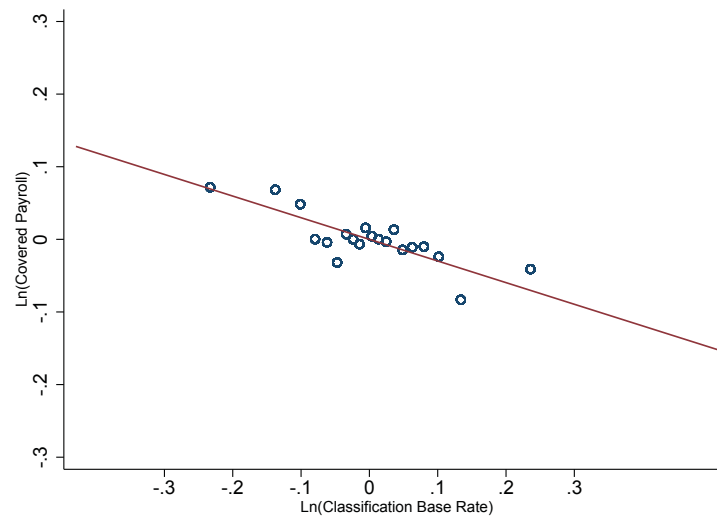


Notes: Each dot in the figure represents a classification update, where classification observations are pooled across updates in the sample period (2006-2011). The figure displays a scatter plot of the following two ratios: the ratio of capped proposed relative base rate to previous base rate ($\frac{proRel_j}{curRel_j}$ for classification j) and the ratio of hypothetical uncapped balanced base rate to previous base rate ($\frac{balRel_j}{curRel_j}$ for classification j). See Appendix Section A for more details on these inputs into the base rate update algorithm.

Figure 3: Graphical Depiction of Demand Estimates



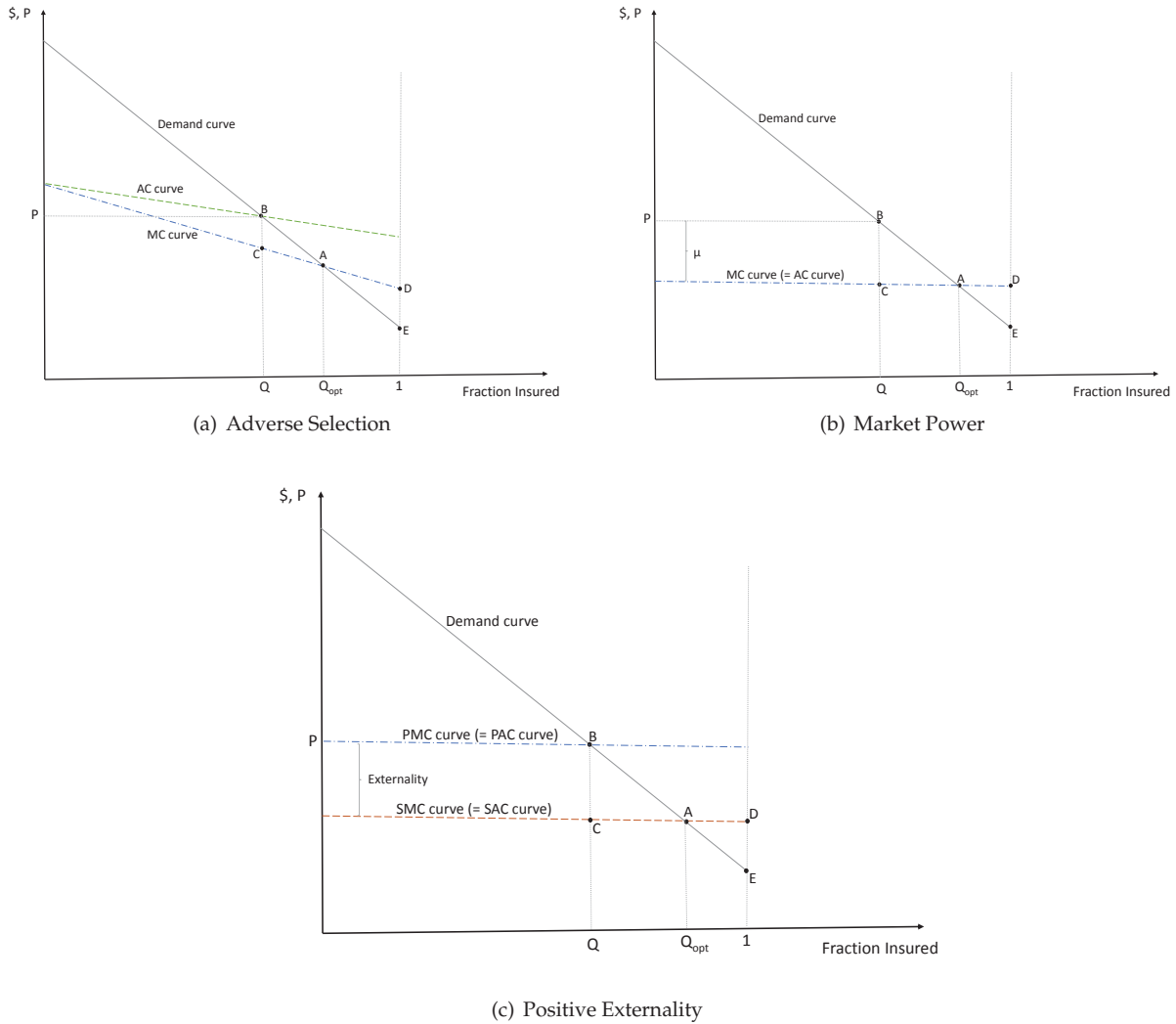
(a) Covered Firms



(b) Covered Payroll

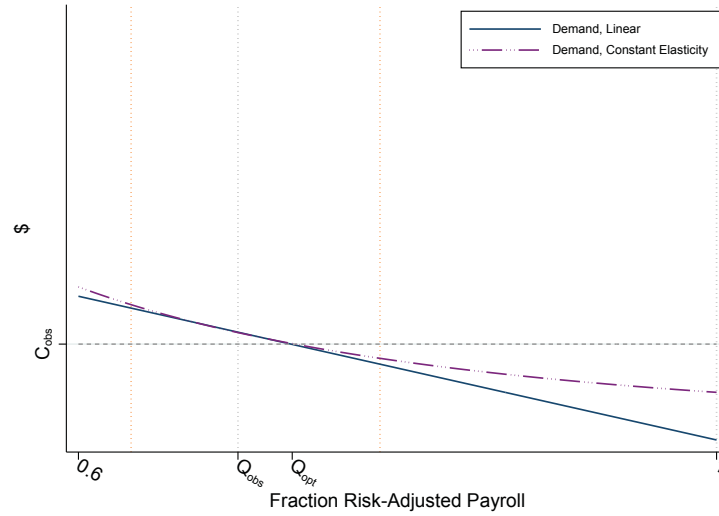
Notes: This figure displays binned mean residual scatter plots for the baseline demand specifications. Each dot represents 5% of the classification-year observations in the baseline sample, where bins are defined based on the values on the horizontal axis. Panel A displays the results for the number of covered firms (analogous to the estimates in Table 3 Panel A column 1), and Panel B displays the results for covered payroll (analogous to the estimates in Table 3 Panel B column 1).

Figure 4: Potential Rationales for Government Intervention

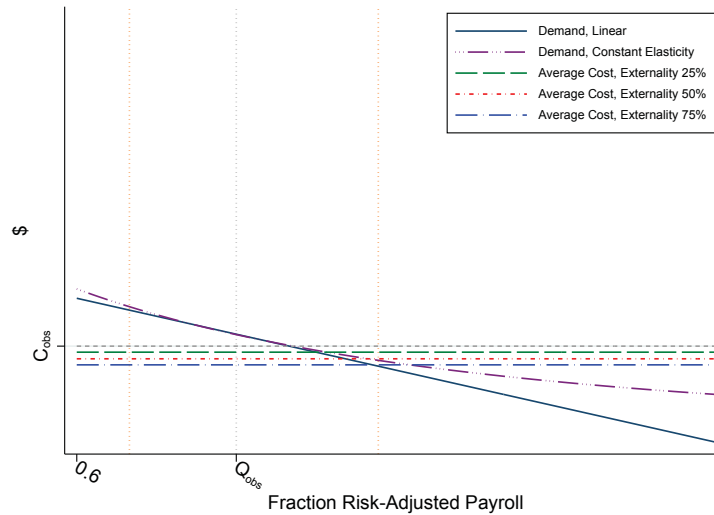


Notes: The above figure depicts potential justifications for government intervention to increase coverage. Panel A depicts a competitive market in which there is adverse selection (characterized by a downward sloping marginal cost curve). Panel B depicts a setting with no selection but with market power, where μ represents the per unit profit. Panel C depicts a setting with no selection but with a positive externality associated with insurance; the figure depicts the case of a constant positive externality, where the social marginal cost curve is represented by shifting the private marginal cost curve downward by the size of the externality.

Figure 5: Welfare: Graphical Representation



(a) Baseline Welfare Calculation: No Selection



(b) Incorporating an Externality

Notes: The above figure depicts a graphical representation of demand based on the empirical estimates. As discussed in the text, we obtain these curves by combining the estimated elasticities and aggregate summary statistics from the overall market on mean premiums, mean quantities, and mean combined insurer loss ratios. See Appendix Section C for further details on this estimation. Both panels depict the marginal cost and average cost curves as flat, given the selection estimates are consistent with no selection in this market. Both panels illustrate the observed quantity of risk-adjusted covered payroll (70%). To give a sense of the range of variation used to identify demand, the figure also displays vertical reference lines indicating the quantities associated with a +/- 25% premium change based on the constant elasticity demand specification (63%, 79%). Panel A depicts a setting with no selection and no externality, where the optimal quantity insured would be between 73% and 74% in either specification. Panel B depicts the conservative back-of-the-envelope calculations regarding potential externalities on external parties that may bear some of the health care costs otherwise covered under workers' compensation.

Table 1: Summary Statistics: Workers' Compensation Take-Up

Source: TDI Survey on Employer Participation				
	Fraction Insured			
	Mean	2006	2008	2010
Statewide				
Employees	0.78	0.77	0.75	0.83
Employers	0.66	0.63	0.67	0.68
Employers by Firm Size				
1-4 employees	0.59	0.57	0.60	0.59
5-9 employees	0.68	0.64	0.69	0.70
10-49 employees	0.77	0.74	0.77	0.80
50-99 employees	0.82	0.81	0.82	0.84
100-499 employees	0.85	0.83	0.84	0.87
500+ employees	0.79	0.79	0.74	0.85
Employers by Industry				
Agriculture/Forestry/Fishing/Hunting	0.74	0.75	0.73	0.75
Mining/Utilities/Construction	0.77	0.79	0.72	0.81
Manufacturing	0.67	0.63	0.69	0.69
WholesaleTrade/Retail Trade/Transportation	0.67	0.63	0.71	0.68
Finance/Real Estate/Professional Services	0.67	0.67	0.67	0.67
Health Care/Educational Services	0.62	0.56	0.61	0.68
Arts/Entertainment/Accommodation/Food Services	0.54	0.48	0.54	0.60
Other Services Except Public Administration	0.60	0.58	0.64	0.58

Notes: This table displays reported summary statistics from an employer phone survey commissioned by the Texas Department of Insurance (TDI) to elicit information about the employer participation rate and associated employer characteristics. Data were obtained from a TDI report summarizing this employer survey: TDI (2014).

Table 2: Summary Statistics: Baseline Sample

Panel A: Annual Statewide Aggregates, 2006-2011					
	Mean	Std. Dev.	Median	25th pctile	75th pctile
Covered Payroll (\$)	2.54E+11	9.16E+09	2.54E+11	2.48E+11	2.58E+11
Covered Payroll (%)	0.73	0.02	0.72	0.72	0.75
Number of Participating Employers	200,138	12,729	201,462	190,044	211,033
Mean Classification Base Rate (\$ per \$100 in payroll)	2.36	0.27	2.31	2.13	2.65
Mean Premium (\$ per \$100 in payroll)	1.79	0.31	1.70	1.55	2.05
Mean Cost, insurer and out-of-pocket (\$ per \$100 in payroll)					
All	2.11	0.08	2.13	2.01	2.15
Medical	1.26	0.11	1.24	1.15	1.38
Indemnity	0.84	0.14	0.78	0.75	0.97
Mean Claims (# per \$50K in payroll)					
All	0.029	0.004	0.028	0.026	0.033
Serious	3.97E-04	8.95E-05	3.71E-04	3.28E-04	4.33E-04
Non-Serious	0.007	0.001	0.007	0.007	0.008
Medical Only	0.022	0.003	0.020	0.019	0.025
Panel B: All Classification-Year Observations (N=1,950), 2006-2011					
	Mean	Std. Dev.	Median	25th pctile	75th pctile
Covered Payroll (\$)	7.82E+08	5.94E+09	8.64E+07	2.48E+07	3.06E+08
Number of Participating Employers	616	1985	85	26	324
Classification Base Rate (\$ per \$100 in payroll)	7.06	5.64	6.21	3.97	8.71
Mean Premium (\$ per \$100 in payroll)	5.75	4.88	4.96	3.04	7.09
Mean Cost, insurer and out-of-pocket (\$ per \$100 in payroll)					
All	6.64	6.99	5.13	2.61	8.28
Medical	4.07	4.54	3.20	1.64	5.11
Indemnity	2.57	3.41	1.75	0.78	3.07
Mean Claims (# per \$50K in payroll)					
All	0.086	0.060	0.077	0.045	0.117
Serious	1.23E-03	2.12E-03	5.60E-04	0.00E+00	1.47E-03
Non-Serious	0.023	0.021	0.020	0.010	0.030
Medical Only	0.062	0.045	0.054	0.029	0.084

Notes: This table displays summary statistics for the data employed in this paper. Panel A describes the data, aggregated to annual level. In Panel A, the fraction of payroll insured is calculated by comparing administrative covered payroll data to aggregate payroll data from the Quarterly Census of Employment and Wages (QCEW). Further details on these data and the construction of these aggregates are in Appendix Section C. Panel B describes the classification-year sample used in the baseline demand analysis (N=1,950). The mean cost variable described above is the total claim cost (per \$100 payroll), where this cost is inclusive of both insurer costs and employer out-of-pocket costs. In the above table, dollar quantities are adjusted using the CPI-U to be 2006 dollars.

Table 3: Demand Estimates

Panel A: Dependent Variable: $\ln(\text{total number covered firms}_{jt})$						
	(1)	(2)	(3)	(4)	(5)	(6)
$\ln(\text{relativeBaseRate}_{jt})$	-0.329 (0.094) [0.001]	-0.270 (0.089) [0.003]	-0.325 (0.107) [0.003]	-0.264 (0.101) [0.010]	-0.335 (0.096) [0.001]	-0.275 (0.089) [0.002]
$\ln(\text{relativeBaseRate}_{j,t+2})$			-0.01 (0.113) [0.930]	-0.015 (0.117) [0.901]		
$\ln(\text{uncappedRelativeBaseRate}_{jt}) * I(\text{capBinding}_{jt})$					0.012 (0.019) [0.534]	0.011 (0.016) [0.515]
Controls						
Classification Fixed Effects	x	x	x	x	x	x
Year Fixed Effects	x	x	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x		x
Mean Dep Var	4.57	4.57	4.57	4.57	4.57	4.57
Panel B: Dependent Variable: $\ln(\text{total covered payroll}_{jt})$						
	(1)	(2)	(3)	(4)	(5)	(6)
$\ln(\text{relativeBaseRate}_{jt})$	-0.298 (0.129) [0.022]	-0.228 (0.122) [0.063]	-0.378 (0.142) [0.008]	-0.278 (0.134) [0.040]	-0.303 (0.133) [0.023]	-0.232 (0.126) [0.067]
$\ln(\text{relativeBaseRate}_{j,t+2})$			0.196 (0.110) [0.076]	0.135 (0.111) [0.224]		
$\ln(\text{uncappedRelativeBaseRate}_{jt}) * I(\text{capBinding}_{jt})$					0.01 (0.018) [0.586]	0.008 (0.018) [0.651]
Controls						
Classification Fixed Effects	x	x	x	x	x	x
Year Fixed Effects	x	x	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x		x
Mean Dep Var	18.32	18.32	18.32	18.32	18.32	18.32

Notes: The table above presents demand estimates from the difference-in-differences specifications as outlined in equations 2 through 5. The data used in these regressions cover the time period 2006-2011, where each observation represents a classification-year (N=1,950). Two different dependent variables are used to estimate the demand elasticities: $\ln(\text{total number of covered firms})$ (Panel A) and $\ln(\text{total covered payroll})$ (Panel B). Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. These classification-year-level regressions include controls as listed above: year fixed effects, classification fixed effects, and 2-digit classification-specific time trends (for specifications in the even columns). While columns 1 and 2 report the baseline specifications, the remaining columns report alternative specifications with additional variables: leads of the legislated base rates (columns 3 and 4) and uncapped base rates that were not ultimately adopted (columns 5 and 6). These uncapped base rates correspond to the *balanced indicated relative base rates* discussed in Appendix Section A. Robust standard errors are clustered at the classification level.

Table 4: Demand Estimates: Additional Robustness Analysis

Panel A: Robustness, Alternative Assumption on Incidence of Workers' Compensation Premium Changes					
Dependent Variable: $\ln(\text{total covered payroll, normalized}_{jt})$					
% of premiums borne by employees					
	0% (baseline)	10%	25%	50%	100%
	(1)	(2)	(3)	(4)	(5)
$\ln(\text{relativeBaseRate}_{jt})$	-0.298 (0.129) [0.022]	-0.293 (0.129) [0.024]	-0.286 (0.129) [0.027]	-0.274 (0.129) [0.034]	-0.247 (0.128) [0.056]
Mean Dep Var	18.32	18.32	18.33	18.35	18.38

Panel B: Robustness, Alternative Dependent Variable Definition						
	(1)	(2)	(3)	(4)	(5)	(6)
$\ln(\text{relativeBaseRate}_{jt})$	-0.329 (0.094) [0.001]	-0.300 (0.081) [0.000]	-0.333 (0.090) [0.000]	-0.298 (0.129) [0.022]	-0.356 (0.162) [0.029]	-0.360 (0.166) [0.031]
Dep Var	$\ln(\text{number covered firms}_{jt})$	$\ln(\text{number covered firms}_{jt}+1)$	Inv Hyperbolic Sine (number covered firms _{jt})	$\ln(\text{total covered payroll}_{jt})$	$\ln(\text{total covered payroll}_{jt}+1)$	Inv Hyperbolic Sine (covered payroll _{jt})
N	1,950	2,144	2,144	1,950	2,144	2,144
Mean Dep Var	4.57	4.34	4.98	18.32	16.66	17.29

Panel C: Robustness, Timing of Updates				
Number of Covered Firms				
	(1)	(2)	(3)	(4)
$\ln(\text{relativeBaseRate}_{jt})$	-0.329 (0.094) [0.001]	-0.145 (0.047) [0.002]	-0.171 (0.040) [0.000]	-0.207 (0.048) [0.000]
Observation level	classification X year	classification X month	classification X month	classification X month
Dep Var	$\ln(\text{number covered firms}_{jt})$	$\ln(\text{number firm policies originated}_{jt})$	$\ln(\text{number firm policies originated}_{jt}+1)$	Inv Hyperbolic Sine (number firm policies originated _{jt} +1)
N	1,950	19,830	23,400	23,400
Mean Dep Var	4.57	2.45	2.24	2.69

Notes: The table above presents robustness analysis from the difference-in-differences demand estimation outlined in equation 2. The data used in these regressions cover the time period 2006-2011, and each regression includes year fixed effects and classification fixed effects. Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. Panel A displays robustness analysis under alternative assumptions on the incidence of changes in workers' compensation premiums. Specifically, these additional specifications repeat the baseline payroll regression replacing the dependent variable with the natural logarithm of normalized covered payroll: $\ln(\frac{\text{payroll}_{jt}}{1-\theta \times \text{premium}_{jt}})$, where premium_{jt} represents the mean premium per dollar of payroll for classification j in year t and θ represents the fraction of premiums shifted to workers in the form of reduced wages. The corresponding assumption on the incidence of premium changes (the value of θ) is denoted in each column. Panel B displays robustness analysis using alternative dependent variables: a $\ln(x+1)$ transformation and an inverse hyperbolic sine transformation of the total number of covered firms and total covered payroll. Panel C displays robustness analysis using an alternative level of observation for the analysis. The baseline analysis utilizes data at the classification-year level, where observations represent the data for policies purchased during the relevant year. Because some updates in relative base rates occur mid-year, we investigate the robustness of this analysis by utilizing monthly data on covered firms to re-estimate the difference-in-differences specification. For reference, column (1) reports the baseline classification-year estimates, while columns (2) through (4) report the corresponding estimates using the classification-month data. In all panels, robust standard errors are clustered at the classification level.

Table 5: Selection Estimates

Panel A: Selection Estimates				
	InvHypSine($\frac{Cost_{it}}{riskAdj_{it} \times Payroll_{it}}$)		ln(riskAdj _{it} x Payroll _{it})	
	(1)	(2)	(3)	(4)
ln(relativeBaseRate _{it})	-0.018 (0.163) [0.914]	0.047 (0.175) [0.790]	-0.431 (0.131) [0.001]	-0.363 (0.122) [0.003]
Controls				
Classification Fixed Effects	x	x	x	x
Year Fixed Effects	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x
Mean Dep Var	2.34	2.34	18.87	18.87
Panel B: Welfare Cost of Selection				
	Linear		Constant Elasticity	
	Est	Std Err	Est	Std Err
	(1)	(2)	(3)	(4)
Welfare Cost of Selection, Version 1 (Table 5 Panel A column 1)				
Quantity (fraction risk-adjusted payroll covered)				
Optimal	0.722	(0.127)	0.724	(0.308)
Perfect Competition	0.733	(0.010)	0.737	(0.012)
Difference	-0.011	(0.123)	-0.012	(0.304)
Welfare per \$100 payroll (relative to status quo)				
Optimal	0.0020	(0.0747)	0.0021	(0.0684)
Perfect Competition	0.0016	(0.0203)	0.0017	(0.0219)
Difference	0.0004	(0.0638)	0.0004	(0.0555)
Welfare Cost of Selection, Version 2 (Table 5 Panel A column 2)				
Quantity (fraction risk-adjusted payroll covered)				
Optimal	0.762	(0.160)	0.772	(0.536)
Perfect Competition	0.729	(0.011)	0.733	(0.013)
Difference	0.032	(0.155)	0.039	(0.531)
Welfare per \$100 payroll (relative to status quo)				
Optimal	0.0137	(0.1116)	0.0148	(0.1291)
Perfect Competition	0.0103	(0.0235)	0.0110	(0.0256)
Difference	0.0034	(0.0944)	0.0038	(0.1125)

Notes: The table above presents estimates relating to the degree of selection in this market. In Panel A, the coefficients reported above are from a difference-in-differences specification as outlined in equations 2 and 3. These classification-year-level regressions include controls as listed above: year fixed effects, classification fixed effects, and 2-digit classification-specific time trends (for specifications in the even columns). Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parenthesis and p-values in brackets. Robust standard errors are clustered at the classification level. The data used in these regressions cover the time period 2006-2011, where each observation represents a classification-year (N=1,950). The dependent variables are as listed in the table above, where overall costs are measured per \$100 of risk-adjusted payroll. In columns (1) and (2), we take an inverse hyperbolic sine of mean costs to include all classification-year observations in the baseline sample. See Appendix Section C for more details on the risk-adjustment used in this analysis. Panel B displays estimates pertaining to the welfare cost of selection utilizing the elasticities reported in Panel A and aggregate summary statistics from the overall market on mean premiums, mean insurer loss ratios, and mean quantities. For the purpose of these welfare calculations, we measure the quantity insured as the fraction of risk-adjusted payroll that is insured. See Appendix Section C for more details on the welfare analysis and associated data inputs. The counterfactuals are conducted using two alternative parametric demand specifications: linear demand (displayed in columns 1 and 2) and constant elasticity demand (displayed in columns 3 and 4). The table reports welfare measured in dollars per \$100 of risk-adjusted payroll. The table reports bootstrapped standard errors clustered at the classification level, where 1,000 randomly drawn bootstrap samples are used.

Table 6: Robustness: Selection Estimates

Panel A: Baseline sample (inverse hyperbolic sine)				
	$\text{InvHypSine}\left(\frac{\text{Cost}_{jt}}{\text{riskAdjust}_{jt} \times \text{Payroll}_{jt}}\right)$		$\ln(\text{riskAdjust}_{jt} \times \text{Payroll}_{jt})$	
	(1)	(2)	(3)	(4)
$\ln(\text{relativeBaseRate}_{jt})$	-0.018 (0.163) [0.914]	0.047 (0.175) [0.790]	-0.431 (0.131) [0.001]	-0.363 (0.122) [0.003]
Controls				
Classification Fixed Effects	x	x	x	x
Year Fixed Effects	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x
Panel B: Robustness, observations with nonzero costs				
	$\ln\left(\frac{\text{Cost}_{jt}}{\text{riskAdjust}_{jt} \times \text{Payroll}_{jt}}\right)$		$\ln(\text{riskAdjust}_{jt} \times \text{Payroll}_{jt})$	
	(1)	(2)	(3)	(4)
$\ln(\text{relativeBaseRate}_{jt})$	0.037 (0.199) [0.853]	0.039 (0.207) [0.850]	-0.328 (0.102) [0.001]	-0.293 (0.095) [0.002]
Controls				
Classification Fixed Effects	x	x	x	x
Year Fixed Effects	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x
Panel C: Robustness, baseline sample ($\ln(x+1)$ transformation)				
	$\ln\left(\frac{\text{Cost}_{jt}}{\text{riskAdjust}_{jt} \times \text{Payroll}_{jt}} + 1\right)$		$\ln(\text{riskAdjust}_{jt} \times \text{Payroll}_{jt})$	
	(1)	(2)	(3)	(4)
$\ln(\text{relativeBaseRate}_{jt})$	-0.019 (0.134) [0.888]	0.034 (0.146) [0.817]	-0.431 (0.131) [0.001]	-0.363 (0.122) [0.003]
Controls				
Classification Fixed Effects	x	x	x	x
Year Fixed Effects	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x

Notes: The table above presents additional estimates relating to the degree of selection in this market. The coefficients reported above are from a difference-in-differences specification as outlined in equations 2 and 3. These classification-year-level regressions include controls as listed above: year fixed effects, classification fixed effects, and 2-digit classification-specific time trends (for specifications in the even columns). Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. Robust standard errors are clustered at the classification level. The data used in these regressions cover the time period 2006-2011, where each observation represents a classification-year ($N=1,950$). The dependent variables are as listed in the table above, where overall costs are measured per \$100 of risk-adjusted payroll. See Appendix Section C for more details on risk-adjustment used in this analysis. For some classification-year observations, there are no costs in a given year. The panels above take three different approaches to handling this issue. Panel A displays the baseline estimates where we include all classification-year observations with non-zero covered payroll and use an inverse hyperbolic sine transformation for the cost variables to include observations with no costs. Panel B repeats the analysis limiting the sample to those classification-year observations with non-zero claim costs ($N=1,929$). Panel C repeats the analysis on the baseline sample using a $\ln(x+1)$ transformation.

Table 7: Baseline Welfare Calculations

Panel A: Welfare Calculations				
	Linear		Constant Elasticity	
	Est (1)	Std Err (2)	Est (3)	Std Err (4)
Counterfactuals				
Quantity (fraction risk-adjusted payroll covered)				
Mandate	1.000	-	1.000	-
Perfect Competition (Optimal)	0.734	(0.010)	0.737	(0.012)
Welfare (relative to status quo)				
Mandate				
per \$100 of risk-adjusted payroll	-0.2070	(0.0939)	-0.1175	(0.0502)
scaled by \$50,000	-103.48	(46.97)	-58.76	(25.10)
% of mean cost	-13.16%	(5.97%)	-7.47%	(3.19%)
Perfect Competition (Optimal)				
per \$100 of risk-adjusted payroll	0.0041	(0.0011)	0.0043	(0.0012)
scaled by \$50,000	2.03	(0.56)	2.16	(0.62)
% of mean cost	0.26%	(0.07%)	0.27%	(0.08%)
Subsidy to support optimal allocation--25% MDWL of taxation				
per \$100 of risk-adjusted payroll	-0.0363	(0.0006)	-0.0362	(0.0021)
scaled by \$50,000	-18.15	(0.28)	-18.12	(1.04)
% of mean cost	-2.31%	(0.04%)	-2.30%	(0.13%)
Panel B: Underlying Data and Corresponding Demand Curve				
	Linear		Constant Elasticity	
	Est (1)	Std Err (2)	Est (3)	Std Err (4)
Demand Curve				
Constant	5.9434	(1.43)	0.7746	(0.18)
Slope	-5.9593	(2.05)	-2.3204	(0.80)
Status Quo				
Quantity	0.697		0.697	
Price	1.79		1.79	
Expenses as a % of Premiums	88%		88%	

Notes: The table above presents welfare calculations as discussed in Section 5. Panel A displays the welfare calculations, while Panel B reports the underlying summary statistics and corresponding fitted demand curve. As discussed in the text, we obtain these curves by combining the estimated elasticities from the baseline specification (excluding classification-specific time trends) and aggregate summary statistics from the overall market on mean premiums, mean insurer loss ratios, and mean quantities. For the purpose of these welfare calculations, we measure the quantity insured as the fraction of risk-adjusted payroll that is insured. See Appendix Section C for more details on the welfare analysis and associated data inputs. In Panel B, the reported "constant" and "slope" in the constant elasticity specification ($P = AQ^\beta$) refer to A and β , respectively; in the linear specification ($P = A + \beta Q$), the "constant" and "slope" refer to A and β , respectively. Because our empirical analysis indicates there is no meaningful selection in this market, we do these calculations under the assumption of no selection, meaning that there is a flat market-level average/marginal (risk-adjusted) cost curve. Appendix Table A7 illustrates that the findings are similar when employing cost curves based on the estimates in Table 5. The counterfactuals are conducted using two alternative parametric demand specifications: linear demand (displayed in columns 1 and 2) and constant elasticity demand (displayed in columns 3 and 4). The table reports welfare measured in dollars per \$100 of risk-adjusted payroll. In addition, the table reports two scaled measures of welfare to ease interpretation: (i) welfare as a percent of the mean cost of the insured in the status quo (one measure of the size of the market) and (ii) welfare measures scaled by \$50K, approximately the mean annual earnings for this population in 2011. The table reports bootstrapped standard errors clustered at the classification level, where 1,000 randomly drawn bootstrap samples are used.

Table 8: Welfare Calculations: Incorporating Potential Externality

	Welfare Calculations															
	Linear								Constant Elasticity							
	Fraction Medical Costs Otherwise Covered By HI								Fraction Medical Costs Otherwise Covered By HI							
	0% (baseline)		25%		50%		75%		0% (baseline)		25%		50%		75%	
Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Counterfactuals																
Quantity (fraction risk-adjusted payroll covered)																
Mandate	1.000	-	1.000	-	1.000	-	1.000	-	1.000	-	1.000	-	1.000	-	1.000	-
Perfect Competition (Optimal)	0.734	(0.010)	0.751	(0.015)	0.769	(0.020)	0.786	(0.025)	0.737	(0.012)	0.760	(0.018)	0.784	(0.026)	0.811	(0.034)
Welfare (relative to status quo)																
Mandate																
per \$100 of risk-adjusted payroll	-0.2070	(0.0939)	-0.1754	(0.0939)	-0.1439	(0.0939)	-0.1124	(0.0939)	-0.1175	(0.0502)	-0.0860	(0.0420)	-0.0545	(0.0422)	-0.0230	(0.0425)
scaled by \$50,000	-103.48	(46.97)	-87.72	(46.97)	-71.96	(46.97)	-56.20	(46.97)	-58.76	(25.10)	-43.00	(21.01)	-27.24	(21.12)	-11.48	(21.25)
% of mean cost	-13.16%	(5.97%)	-11.16%	(5.97%)	-9.15%	(5.97%)	-7.15%	(5.97%)	-7.47%	(3.19%)	-5.47%	(2.67%)	-3.46%	(2.69%)	-1.46%	(2.70%)
Perfect Competition (Optimal)																
per \$100 of risk-adjusted payroll	0.0041	(0.0011)	0.0088	(0.0024)	0.0154	(0.0042)	0.0238	(0.0065)	0.0043	(0.0012)	0.0097	(0.0028)	0.0174	(0.0051)	0.0279	(0.0082)
scaled by \$50,000	2.03	(0.56)	4.41	(1.21)	7.69	(2.12)	11.88	(3.27)	2.16	(0.62)	4.83	(1.39)	8.72	(2.53)	13.94	(4.10)
% of mean cost	0.26%	(0.07%)	0.56%	(0.15%)	0.98%	(0.27%)	1.51%	(0.42%)	0.27%	(0.08%)	0.61%	(0.18%)	1.11%	(0.32%)	1.77%	(0.52%)
Subsidy to support optimal allocation--25% MDWL of taxation																
per \$100 of risk-adjusted payroll	-0.0363	(0.0006)	-0.0521	(0.0012)	-0.0669	(0.0021)	-0.0808	(0.0033)	-0.0362	(0.0021)	-0.0519	(0.0031)	-0.0665	(0.0043)	-0.0800	(0.0056)
scaled by \$50,000	-18.15	(0.28)	-26.03	(0.61)	-33.45	(1.06)	-40.42	(1.64)	-18.12	(1.04)	-25.94	(1.57)	-33.24	(2.15)	-40.02	(2.82)
% of mean cost	-2.31%	(0.04%)	-3.31%	(0.08%)	-4.25%	(0.13%)	-5.14%	(0.21%)	-2.30%	(0.13%)	-3.30%	(0.20%)	-4.23%	(0.27%)	-5.09%	(0.36%)

Notes: The table above presents welfare calculations as discussed in Section 5.2.3. This table repeats the welfare analysis in Table 7 under various alternative assumptions regarding the fraction of the medical costs covered by workers' compensation insurance that in the absence of coverage fall to an external party (e.g., health insurance, charity care). For the purpose of this robustness analysis, we use "health insurance" to refer to any external party that may bear these medical costs in the absence of workers' compensation, which may include formal health insurance but also could include informal insurance (e.g., charity care). In these calculations, we assume that health insurers do not make actuarial adjustments to premiums based on workers' compensation coverage, and we assume that health insurance provides 70% actuarial value coverage of medical costs, while workers' compensation provides 100% actuarial value coverage of medical costs. For the linear specification, the baseline results with no externality are displayed in columns 1 and 2, while the results in the remaining columns assume that 25%, 50%, or 75% of workers' compensation medical claim costs would otherwise be eligible for coverage under health insurance. The analogous results for the constant elasticity specifications are reported in columns 9 through 16. The table reports bootstrapped standard errors clustered at the classification level, where 1,000 randomly drawn bootstrap samples are used. See Table 7 and Appendix Section C for further details on the welfare calculations.

APPENDIX

A Description of Base Rate Update Algorithm

Below we describe the algorithm used by the Texas Department of Insurance Workers' Compensation office to update base rates. The data associated with the base rate update algorithm (e.g., inputs, outputs, intermediate outputs) come from the Texas Department of Insurance Workers' Compensation Annual Relativities Studies. Studies from recent years are posted online, and studies from earlier years are available through an open records request.⁶⁰ We are thankful to employees of the Texas Department of Insurance Actuarial Office for several helpful discussions as we worked to understand the details of the rate update process. We first outline the steps for updating base rates in a typical year with a revenue neutral update, and we then explain how this update algorithm is adjusted in years in which the overall level of base rates is adjusted (i.e., "re-basing years").

- Step 1: The initial inputs into the algorithm are: (i) the raw loss experience for relevant policy years, which is a five-year window lagged by three years and (ii) the current base rates ($crtRel_j$). For example, for base rates in 2007, the raw loss experience considered is the loss experience from policy years 2000 to 2004. Below, we will represent the year the update will take effect as t , thus the window used as input is $[t - 7, t - 3]$. Indemnity losses were grouped into categories depending on the injury type. These categories are serious (i.e., death, permanent total, and major permanent partial) and non-serious (i.e., minor permanent partial, and temporary total). Medical losses are similarly grouped into serious, non-serious, and medical only categories.
- Step 2: Raw losses were adjusted to exclude all amounts in excess of \$350,000 per claim, \$700,000 per accident. These adjusted amounts are referred to as limited losses. The purpose of limiting the losses is to reduce the possibility of large random fluctuations that might otherwise occur from the occurrence or non-occurrence of a single large accident.
- Step 3: The limited losses for each of the policy years are adjusted to a common level. The common level is determined to equal the average level underlying the current base rates.
- Step 4: The adjusted limited losses summed across all the input policy years for each classification ($AggLimitedLoss_{jc}$) are used to determine a set of experience relative base rates. These experience relative base rates are then credibility weighted against the current relative base rates. The experience relative base rate, $expRel_{jc}$, for classification j and category c is defined as follows,

$$expRel_{jc} = \frac{(AggLimitedLoss)_{jc} \times 100}{AggPayroll_j}. \quad (1)$$

These experience relative base rates are then weighted depending on whether a specified number of claims threshold is met using the following weights:

$$Cred_{jc} = \begin{cases} 1, & \text{if full credibility number of claim threshold met} \\ \left(\frac{(AggPayroll_j \times crtRel_j)/100}{\text{full credibility losses}} \right)^{0.4}, & \text{otherwise} \end{cases}$$

where $crtRel_{jc}$ is the current relative base rate and the full credibility threshold is in Texas Department of Insurance Documentation (Annual Relativities Study, Exhibit 21). Lastly, the *weighted relative base rate*, $wgtRel$, is defined as follows:

⁶⁰See <https://www.tdi.texas.gov/reports/report9.html>

$$wgtRel_{jc} = Cred_{jc}expRel_{jc} + (1 - Cred_{jc})crtRel_{jc} \quad (2)$$

The final step works with the overall base rates, which is simply the sum across categories c . We denote overall base rates by dropping the c subscript.

Step 5: Next, the *balanced indicated relative base rate*, $balRel$, is calculated as follows:

$$balRel_j = \left(\frac{\sum_j crtRel_j \times \text{payroll in t-3}_j}{\sum_j wgtRel_j \times \text{payroll in t-3}_j} \right) wgtRel_j \quad (3)$$

Lastly, the relative rates are capped at at most a 25% change in either direction to create the *limited relative base rate*, $limRel$:

$$limRel_j = \begin{cases} 1.25 \times crtRel_j, & \text{if } balRel_j > 1.25 \times crtRel_j \\ 0.75 \times crtRel_j, & \text{if } balRel_j < 0.75 \times crtRel_j \\ balRel_j, & \text{otherwise.} \end{cases}$$

In these terms, the *proposed relative base rate*, $proRel_j$, is:

$$proRel_j = \begin{cases} limRel_j, & \text{if } balRel_j > 1.25 \times crtRel_j \text{ or } balRel_j < 0.75 \times crtRel_j \\ \left(\frac{\sum_j crtRel_j \times \text{payroll in t-3}_j}{\sum_j limRel_j \times \text{payroll in t-3}_j} \right) limRel_j, & \text{otherwise} \end{cases}$$

Within the Texas Department of Insurance Workers' Compensation Annual Relativities Study, the balanced relative base rates are summarized on Exhibit 23, and Exhibit 24 provides a similar summary of the limited relative base rates. Note the above calculation yields a new set of relative base rates that are approximately revenue neutral.⁶¹

Step 6: Three updates during our sample (2008, 2009, and 2011) included across-the-board decreases in the level of base rates. These level decreases are made *after* all of the other steps described above. An $X\%$ drop in base rates is achieved by an adjustment of the following form:

$$\text{Final Base Rate}_j = (1 - X)proRel_j. \quad (4)$$

In a year with no across-the-board reduction, the *final base rate* is simply the proposed base rate ($X = 0$).

B Monthly Regressions

Table 4 in the text displays monthly regression results where we regress the number of new policies initiated in a given month on the base rate in effect in that month. Below, we present monthly regressions in an event study figure where we zoom in on the months just surrounding a rate update to illustrate that the change in workers' compensation coverage takes place in the months after the update takes effect. Let us consider the eight months on either side of each rate update, pooling across all the rate updates during the sample period. We normalize the time surrounding the updates such that the update is implemented in month 1 of event time. Let t denote calendar months and n denote two-month bins of event time. We estimate the following regression:

$$\ln(y_{ct}) = \sum_n \beta_n (\ln(b_1) - \ln(b_0)) + \gamma_t + \alpha_c + \epsilon_{ct}, \quad (5)$$

⁶¹In practice, there are two reasons why these rates may depart from revenue neutral updates slightly. First, in some years there seem to be some slight deviations from the above Step 5 description due to a rounding error. Second, Step 5 described above produces relative base rates that are close to (but not perfectly) revenue neutral. This is because the "capped" classifications are not re-normalized in the final stage. In practice, this will not make a difference because it is so close to revenue neutral.

where $\ln(b_1) - \ln(b_0)$ represents the update that is implemented in month 1 of event time. For the dependent variable $\ln(y_{ct})$, we will analyze the natural logarithm of the number of newly initiated workers' compensation policies in month t for classification c . While policies are initiated throughout the calendar year, there is some clustering in January. Further, for smaller classifications it is common to have months with no newly initiated policies. Thus, we will also estimate specifications with an inverse hyperbolic sine transformation to include these zeros and specifications that focus on a subsample of large classifications. The coefficients of interest β_n describe how the regulatory updates to premiums are related to newly initiated policies, both before and after the update is implemented, where we normalize to zero the coefficient representing the two months just before the update is implemented.

Figure A3 presents the results. Panel A displays estimates based on all classifications in the baseline sample. Because there are several smaller classifications with no newly initiated policies in a given month, we include these observations by using an inverse hyperbolic sine transformation. The remaining panels focus on relatively large classifications, for which this zero observation issue is not a major concern. Specifically, in these specifications, we restrict attention to classifications with more than five workers' compensation policies initiated in each month of 2006, the first year of our sample. For these relatively large classifications, there are few months over the sample for which there are zero policies initiated, and thus the results are similar when using a $\ln(x)$ transformation (Panel B) or an inverse hyperbolic sine transformation (Panel C).

Though there is considerable noise in the high-frequency monthly analysis, there are a few important take-aways from this figure. First, the estimated β_n coefficients for the months leading up to the update implementation are small and statistically indistinguishable from zero. These results suggest that the rate updates were not related to coverage rates before the updates were implemented, providing support for the identification assumption. Second, the pattern of the β_n estimates indicates that coverage responds to regulatory rate updates, with a 10% increase in premiums leading to a 3-5% drop in newly initiated workers' compensation insurance policies by three months after the implementation. The estimates suggest a larger effect on monthly policies initiated among larger classifications, a pattern that is expected given these classifications have non-trivial enrollment in each month of the first year of the sample (and hence are less likely to be constrained at zero in any given month).

C Welfare Analysis: More Details on Empirical Implementation

C.1 Approach

The approach to empirically implementing the welfare analysis follows Einav and Finkelstein (2011), adapting the framework to accommodate the risk-adjusted premiums observed in this setting. Throughout the discussion below, the risk adjustment we refer to is employer-level experience rating. To ease notation, let us represent risk-adjusted payroll units as: $\mathbb{Q} \equiv AR(Q)Q$. Specifically, we use the variation in classification base rates to estimate reduced form elasticities in terms of risk-adjusted payroll for demand ($\epsilon_{\mathbb{Q},b} \equiv \frac{\partial \mathbb{Q}}{\partial b} \cdot \frac{b}{\mathbb{Q}}$) and average cost ($\epsilon_{AC,b} \equiv \frac{\partial AC(\mathbb{Q})}{\partial b} \cdot \frac{b}{AC(\mathbb{Q})}$). We can combine these elasticities to get the elasticity of the average cost curve with respect to risk-adjusted payroll:

$$\frac{\partial AC(\mathbb{Q})}{\partial \mathbb{Q}} \cdot \frac{\mathbb{Q}}{AC(\mathbb{Q})} = \frac{\frac{\partial AC(\mathbb{Q})}{\partial b} \cdot \frac{b}{AC(\mathbb{Q})}}{\frac{\partial \mathbb{Q}}{\partial b} \cdot \frac{b}{\mathbb{Q}}} \quad (6)$$

Suppose that marginal costs are monotonic in \mathbb{Q} . Then, the sign of the above elasticity in equation 6 offers a test for selection: $\frac{\partial AC(\mathbb{Q})}{\partial \mathbb{Q}} > 0$ indicates advantageous selection, and $\frac{\partial AC(\mathbb{Q})}{\partial \mathbb{Q}} < 0$ indicates adverse selection.

To go beyond a test for selection in the quantitative welfare analysis, we need to make parametric assumptions on the form the demand and cost curves. We proceed by making such assumptions and combining the reduced form elasticities with market-level data reported by TDI on mean premiums, mean quantities, and mean combined insurer loss ratios to trace out the empirically relevant curves in this setting (analogous to those presented in the graphical illustration in Figure 4). Consider two different parametric forms for the demand and cost curves as a function of \mathbb{Q} : constant elasticity and linear.

We take as inputs our two elasticity estimates ($\epsilon_{\mathbb{Q},b} \equiv \frac{\partial \mathbb{Q}}{\partial b} \cdot \frac{b}{\mathbb{Q}}$; $\epsilon_{AC,b} \equiv \frac{\partial AC(\mathbb{Q})}{\partial b} \cdot \frac{b}{AC(\mathbb{Q})}$) and market-level

aggregates from TDI on mean premium per risk-adjusted unit (p^*), mean cost per risk-adjusted unit (c^*)⁶², and mean risk-adjusted quantity (Q^*).

- **Linear:** We use the reduced form estimates along with the aggregate TDI data and a linear parametric extrapolation to back out the parameters in the demand and average cost curves: $D(p) = A + Bp$; $AC(p) = C + Ep$. We can derive the MC curve from these curves using:

$$MC(p) = \left(\frac{\partial D}{\partial p}\right)^{-1} \frac{\partial(AC(p) \times D(p))}{\partial p}. \quad (7)$$

Using this relationship, we get that:

$$MC(p) = \frac{AE}{B} + C + 2Ep. \quad (8)$$

We can re-write these in terms of Q ,

$$\begin{aligned} - P(Q) &= \frac{Q}{B} - \frac{A}{B} \\ - AC(Q) &= C - \frac{AE}{B} + \frac{QE}{B} \\ - MC(Q) &= C - \frac{AE}{B} + \frac{2EQ}{B}. \end{aligned}$$

We can back out these parameters with our reduced form elasticity estimates and the available aggregates: $A \equiv Q^*(1 - \epsilon_{Q,b})$; $B \equiv \epsilon_{Q,b} \left(\frac{Q^*}{p^*}\right)$; $C \equiv c^*(1 - \epsilon_{AC,b})$; $E \equiv \epsilon_{AC,b} \left(\frac{c^*}{p^*}\right)$.

- **Constant Elasticity:** We use the reduced form estimates along with the aggregate TDI data and a constant elasticity parametric extrapolation to back out the parameters in the demand and average cost curves: (i) $AC(p) = Ap^{e_c}$ and (ii) $D(p) = Bp^{e_d}$. We can derive the MC curve from these curves using:

$$MC(p) = \left(\frac{\partial D}{\partial p}\right)^{-1} \frac{\partial(AC(p) \times D(p))}{\partial p}. \quad (9)$$

Using this relationship, we get that:

$$MC(p) = \frac{e_c + e_d}{e_d} AC(p). \quad (10)$$

So, we can write $MC(p) = Cp^{e_c}$, where $C \equiv A \frac{e_c + e_d}{e_d}$. In terms of Q we can express the inverse demand and cost curves as:

$$\begin{aligned} - P(Q) &= \left(\frac{Q}{B}\right)^{\frac{1}{e_d}} \\ - AC(Q) &= A \left(\frac{Q}{B}\right)^{\frac{e_c}{e_d}} \\ - MC(Q) &= A \frac{e_c + e_d}{e_d} \left(\frac{Q}{B}\right)^{\frac{e_c}{e_d}}. \end{aligned}$$

We can back out these parameters with our reduced form elasticity estimates and the available aggregates: $e_c \equiv \epsilon_{AC,b}$; $e_d \equiv \epsilon_{Q,b}$; $A \equiv \frac{c^*}{(p^*)^{\epsilon_{AC,b}}}$; $B \equiv \frac{Q^*}{(p^*)^{\epsilon_{Q,b}}}$.

C.2 Definition of Data Elements

While Section 2.2 describes our data sources, this section elaborates on the available data and the definition of several variables of interest in our analysis. The administrative data focus on information about employers and payroll covered by workers' compensation insurance. To conduct the welfare analysis described in the text, we additionally need to measure the size of the market: the total eligible payroll that could be covered by the workers' compensation system. Following the methodology used by TDI for internal research on participation rates (Choi, 2011), we measure the size of the market through comparing the administrative covered payroll data to private sector covered payroll data from the Quarterly Census

⁶²The mean costs are inferred from the reported mean combined insurer loss ratio and mean premiums.

of Employment and Wages (QCEW). Because the administrative data on covered payroll exclude certified self-insured employers, we adjust the denominator of private sector payroll to exclude payroll represented by the 95 certified self-insured employers during our analysis period. Because there is no covered payroll information for the certified self-insured employers, we approximate covered payroll at these firms by combining administrative data on the number of covered employees at these firms with data on mean earnings in private sector employment from the QCEW.

Recall that premiums in this market are represented as in equation 1 described in Section 2.1 of the main text. We have data on several components of these premiums. We use data on regulatory base rates ($b_t(c_j)$) in our primary estimation. In addition, we use a dataset obtained through a TDI open records request that includes classification-year-level data on mean manual premiums (mean value of premiums before experience rating is applied) and mean final premiums (mean value of premiums after experience rating is applied). Following a similar methodology as that used by TDI for internal research on experience rating (Choi, 2011), we construct a proxy for the experience rating multiplier (also referred to in the text as the risk adjustment modifier) by using data at the classification-year level and taking the ratio of the mean final premiums and the mean manual premiums. The welfare analysis measures quantity in units of risk-adjusted (experience-rated) payroll. In practice, we do this re-scaling by predicting the average risk adjustment modifier in the market using estimated reduced form regressions relating: (i) the mean risk adjustment modifier to base rates and (ii) the mean covered payroll to base rates; we do this re-scaling based on a linear extrapolation from these estimated elasticities.

D Additional Robustness Analysis

D.1 Workers' Compensation Classification Coding

The identification strategy outlined in the main text takes workers' compensation classification coding of employers as exogenous. In this appendix section, we investigate the possibility of problematic endogenous coding related to our identifying variation. Let j represent an employer and t represent year. Specifically, we estimate specifications such as the following:

$$I(c_{j,t} \neq c_{j,t-1}) = \beta \Delta \ln(b)_{c_{j,t-1}} + \tau_t + \gamma_j + \Theta X_{jt} + \epsilon_{jt}, \quad (11)$$

where $c_{j,t}$ represents the classification of employer j in year t , and $\Delta \ln(b)_k$ is defined as the difference in log base rate for classification k between year t and $t - 1$ ($\Delta \ln(b)_k \equiv \ln(b_{kt}) - \ln(b_{k,t-1})$). As noted above, additional controls include year fixed effects (τ_t), employer fixed effects (γ_j), and additional controls in some specifications (X_{jt}). Robust standard errors are clustered at the classification level.

As noted in the text, in practice employers may have multiple classifications if they have a diverse workforce. In the employer-level data we utilize, we observe the employer's primary classification, often referred to as the *governing classification*, which covers most of the employer's payroll. Actual premiums paid are adjusted to account for the fraction of the employer's workforce dedicated to other categories (most commonly clerical and transportation services), and the percent of payroll allocated to each classification is subject to verification with ex post payroll auditing. In the analysis here, we focus on whether there is endogenous coding of an employer's governing classification (e.g., an employer's primary classification). We note that any observed changes in the governing classification of an employer could represent true underlying changes in the workforce composition of an employer.

With the inclusion of employer fixed effects, the coefficient β in equation 11 measures the degree to which employer classification switching is correlated with regulatory base rate increases associated with an employer's classification. Specifically, a positive and significant coefficient estimate for β would indicate that employers are more likely to switch away from a particular classification when the relative price increases for this classification. Appendix Table A2 presents the results. There are a few important things to note. First, changes in employer governing classifications are uncommon. Among the classification-year observations in this sample, 91% represent employers who have same classification in this year as in the prior year. Second, there is no detectable association between the base rate variation and classification switching. Appendix Table A2 columns (1) and (2) present estimates from specifications with more or fewer controls; both specifications yield estimates for β that are both small and statistically indistinguishable from zero.

D.2 Exclusion of Certified Self-Insured Employers

Our baseline analysis excludes certified self-insured employers and associated employee payroll. We make this exclusion for two key reasons: (i) our identification strategy leverages variation in the premiums for coverage purchased from workers' compensation insurance providers, and (ii) the administrative data on covered payroll and claims are only available for the payroll covered through policies purchased from a workers' compensation insurance provider. As discussed in the text, there are strict requirements to become a certified self-insured firm. Perhaps because of these requirements, very few employers take up this option: only 95 firms are ever self-insured during our analysis period (2006-2011). Among these 95 firms that are ever self-insured from 2006-2011, 89 firms are continuously self-insured for the entire time period. In other words, there are only a handful of firms who ever switch between being self-insured and another status (purchased policy or no insurance). While the persistence in self-insurance implies it is unlikely that the exclusion of these firms affects our demand estimates, we directly analyze the robustness of the results with respect to our baseline sample definition, as described below.

We have administrative data on the identity of each certified self-insured firm in addition to each employer with a purchased policy. Thus, we can repeat the analysis analyzing the number of participating employers, either excluding or including the certified self-insured firms. The baseline analysis reported in Table 3 Panel A in the main text excludes certified self-insured firms, and Appendix Table A3 displays the analysis including all participating employers (both those with purchased policies and the certified self-insured). Comparing these results, we see the results are nearly identical.

D.3 Eligible Population of Firms and Workers

Our baseline analysis utilizes dependent variables (the natural logarithm of covered payroll, the natural logarithm of covered firms) that are constructed solely from the administrative data. As discussed in Section 3, there is no administrative data on the universe of eligible firms and workers in each classification, so it is not possible to estimate demand in terms of the fraction of payroll insured (or the fraction of firms insured). A more detailed explanation is below. The ideal demand estimation would be in terms of share of eligible firms or eligible payroll that is covered:

$$\ln\left(\frac{\text{TotInsured}_{jt}}{\text{TotEligible}_{jt}}\right) = \gamma + \pi \ln(b_{jt}) + \lambda_j + \tau_t + \mu_{jt}. \quad (12)$$

Rearranging terms we get:

$$\ln(\text{TotInsured}_{jt}) = \gamma + \pi \ln(b_{jt}) + \lambda_j + \tau_t - \ln(\text{TotEligible}_{jt}) + \mu_{jt}, \quad (13)$$

where $\ln(\text{TotEligible}_{jt})$ is unobserved. Suppose we can represent this term as:

$$\ln(\text{TotEligible}_{jt}) = \phi + \rho \ln(b_{jt}) + \eta_j + \sigma_t + e_{jt}. \quad (14)$$

Substituting this into the ideal demand specification we get:

$$\ln(\text{TotInsured}_{jt}) = (\gamma + \phi) + (\pi + \rho) \ln(b_{jt}) + (\eta_j + \lambda_j) + (\sigma_t + \tau_t) + (e_{jt} + \mu_{jt}). \quad (15)$$

Thus, the feasible regression will provide an estimate of $\pi + \rho$. This is a consistent estimate of the true demand elasticity π if and only if $\rho = 0$. Thus, to interpret the baseline estimates as reflecting the demand for insurance, a key assumption is that the eligible population of workers and firms in each classification is not changing in response to the identifying premium variation (i.e., $\rho = 0$). While the lack of classification-level data on the eligible population prevents us from testing this directly, we present some supporting evidence for this assumption by utilizing North American Industry Classification System (NAICS) industry-year level data on the Texas workforce from the Quarterly Census of Employment and Wages (QCEW) and relating this to the classification-year-level variation in workers' compensation premiums utilizing a crosswalk derived from the administrative data.

Specifically, we take aggregate data on the universe of firms and workers at the NAICS industry-year-level from the QCEW. We then match these to the classification-year-level workers' compensation premium variation utilizing a crosswalk that is derived from the administrative data. We construct this crosswalk

using the administrative data described in Section 2.2 on all policies purchased by firms participating in the Texas workers' compensation system. Importantly, these data include the workers' compensation classification code for each firm and these data also include information on the NAICS six-digit industry code.

In practice, there are a few challenges to creating a crosswalk from industry codes to classification codes. First, the NAICS industry code field is missing for approximately one-third of observations. Second, each NAICS code does not always map nicely to one workers' compensation classification code. In the face of these challenges, we proceed as follows. Starting with the pooled data across our analysis period, we use the observed NAICS industry-classification pairs to construct a frequency-weighted crosswalk under the assumption that the missing industry values are not selected. To remove outliers that may represent measurement error, we exclude industry-classification pairs that represent fewer than 50 observations or fewer than 5% of the observations associated with a particular NAICS industry code.

We examine whether the eligible population is related to the identifying variation by estimating variants of the following equation:

$$\ln(y_{it}) = \alpha + \beta \ln(b_{it}) + \delta_i + \theta_t + \lambda_i t + \epsilon_{it}, \quad (16)$$

where i is a NAICS industry, and t is a year. In this specification, $\ln(b_{it})$ represents the natural logarithm of the mean base rate applicable in the industry based on the constructed NAICS-classification crosswalk described above. All specifications include year and industry fixed effects, and we estimate specifications with an additional control: a four-digit NAICS industry-specific time trend.

Appendix Table A4 presents the results. Overall, the results suggest that neither the aggregate number of firms nor the aggregate number of workers in an industry is responsive to the premium variation in classifications associated with the industry. This evidence builds confidence in our interpretation of the primary baseline regressions as reflecting the demand for insurance.

D.4 Selection Analysis and Additional Robustness

Appendix Table A5 presents additional specifications utilizing several alternative measures of claims: overall costs (the baseline measure), medical costs, income benefit costs, total claims, serious claims, non-serious claims, and "medical only" claims (i.e., claims with no income benefits). We also report results for a "predicted costs" measure, where we predict costs in that classification-year by taking the observed number of claims in the classification-year in each category (serious, non-serious, and medical only) and associate with each claim the mean cost of claims in those categories within the classification across the sample period. Across all the specifications, the coefficient estimates on the base rate are small and statistically indistinguishable from zero.

Appendix Table A6 displays additional robustness analysis for the selection specifications. Panel A reports regression estimates for costs relative to risk-adjusted payroll, and Panel B reports regression estimates for risk-adjusted payroll. Columns (1) and (2) report the baseline selection estimates with and without classification-specific time trends (from Table 5 in the text). Columns (3) and (4) report the results for analogous specifications with an extra term included: the natural logarithm of the base rate in effect two years prior. Columns (5) and (6) report the results from analogous specifications with an additional term: the hypothetical uncapped base rate if not for the final step in the update algorithm. If the baseline identification assumption holds, including these extra terms should not affect the main results. The qualitative findings are the same across these specifications. The coefficient estimates associated with the contemporaneous base rate in the cost specifications are small and statistically indistinguishable from zero.

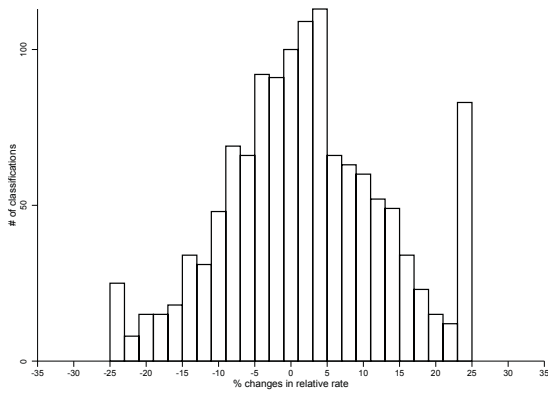
D.5 Welfare Analysis and Empirical Cost Curves

Based on the empirical analysis which finds no evidence of selection in this market, the primary welfare calculations in the text are conducted under the assumption of no selection, meaning that there is a flat market-level average/marginal (risk-adjusted) cost curve. Appendix Table A7 presents the same welfare analysis if instead we employ the small (and statistically indistinguishable from zero) risk-adjusted cost elasticity estimates reported in Table 5. The table presents two sets of estimates, using the selection point estimates from a specification without a time trend (Table 5 Panel A column 1) and the selection point estimates from a specification with a time trend (Table 5 Panel A column 2). Both sets of estimates are quantitatively small, and the key results are similar to those in the baseline welfare analysis in Table 7.

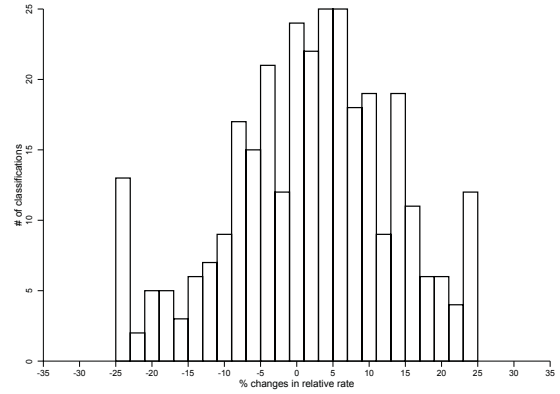
D.6 Welfare Analysis and Alternative Incidence Assumptions

Table 4 in the text presents additional analysis investigating the robustness of the covered payroll demand specifications under alternative incidence assumptions. Appendix Table A8 presents the selection estimates, and Appendix Table A9 presents the welfare estimates under alternative incidence assumptions. These results are quantitatively and qualitatively similar to the baseline selection and welfare estimates.

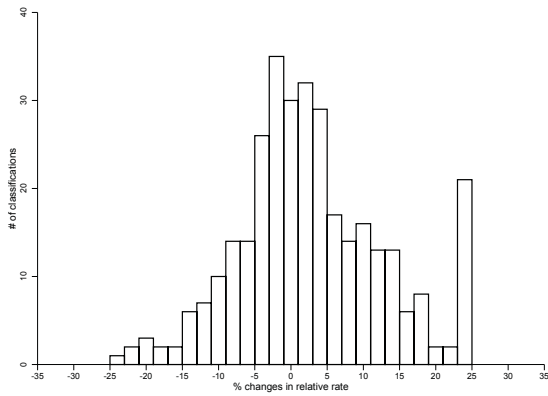
Figure A1: Histogram of Proposed Base Rate Updates



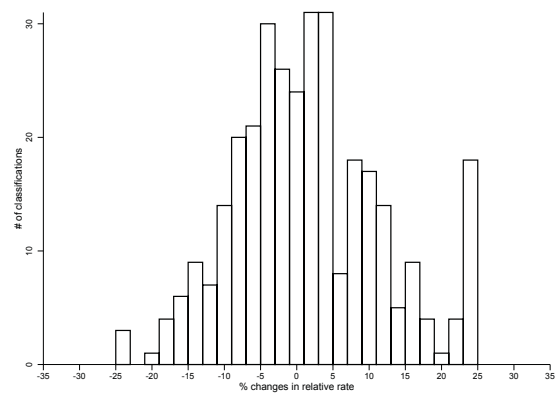
(a) Pooled



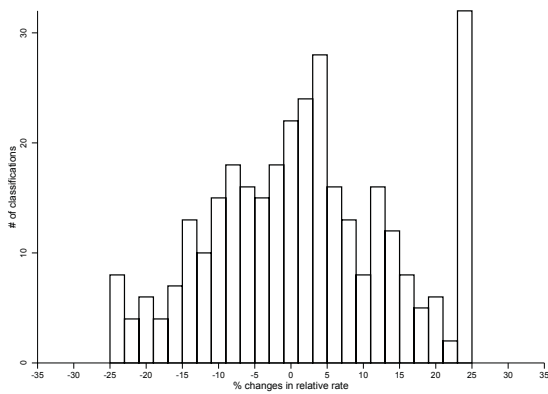
(b) Update 2007



(c) Update 2008



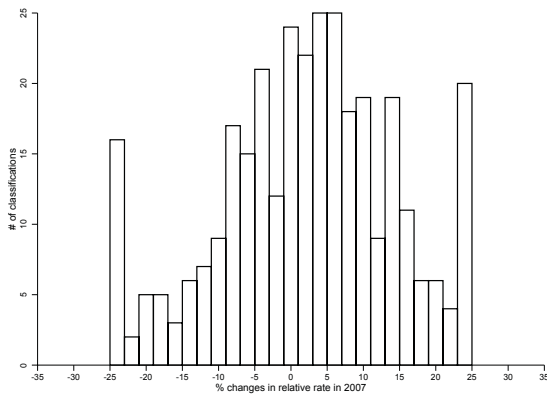
(d) Update 2009



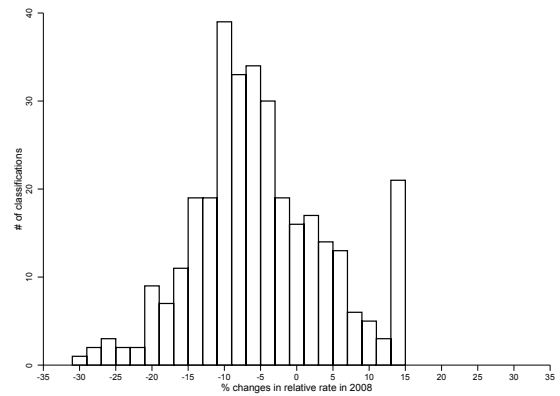
(e) Update 2011

Notes: The above histograms describe the proposed updates to the base rates (before any across-the-board adjustments). Following the definitions in Appendix Section A, the percent change here is defined as: $\frac{proRel_j - criRel_j}{criRel_j}$ for classification j . The updates in the final implemented base rates (after across-the-board adjustments) are depicted in Appendix Figure A2.

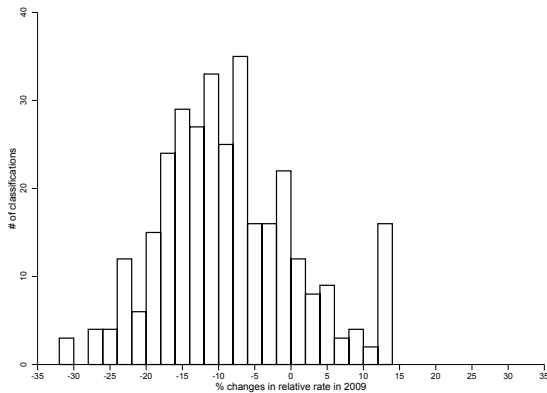
Figure A2: Histogram of Percent Change in Final Base Rates



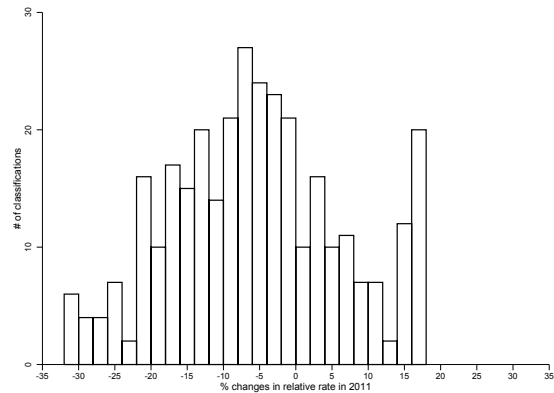
(a) Update 2007



(b) Update 2008



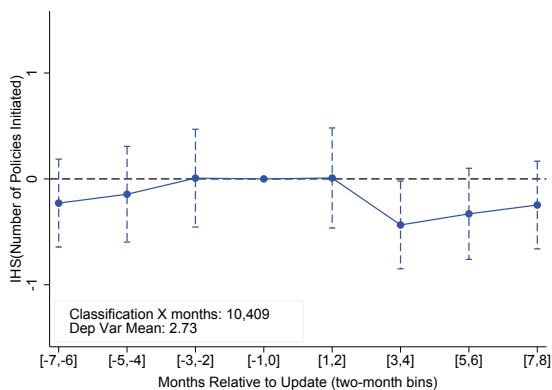
(c) Update 2009



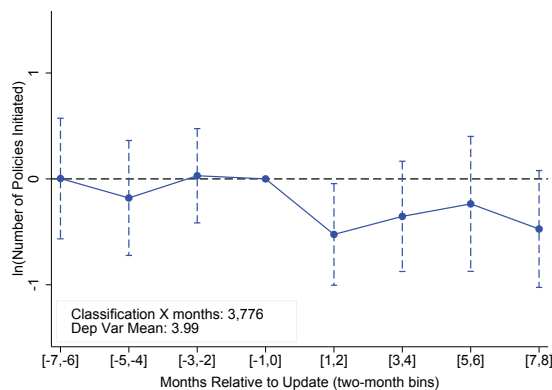
(d) Update 2011

Notes: The above histograms describe the change in the final relative base rates. These histograms focus on the change in the final implemented base rates (after any across-the-board adjustments). Following the definitions in Appendix A, the percent change here is defined as: $\frac{\text{Final Relative Base Rate}_j - \text{crtRel}_j}{\text{crtRel}_j}$ for classification j .

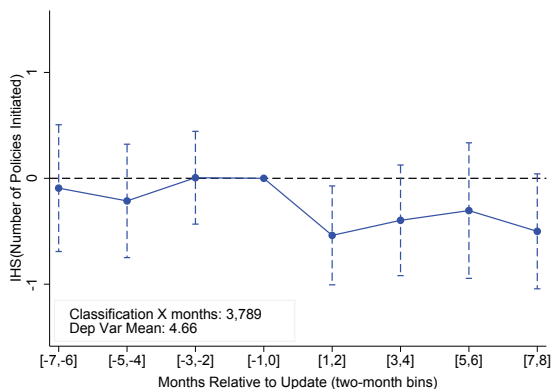
Figure A3: Demand for Coverage: Monthly Analysis



(a) All Classifications



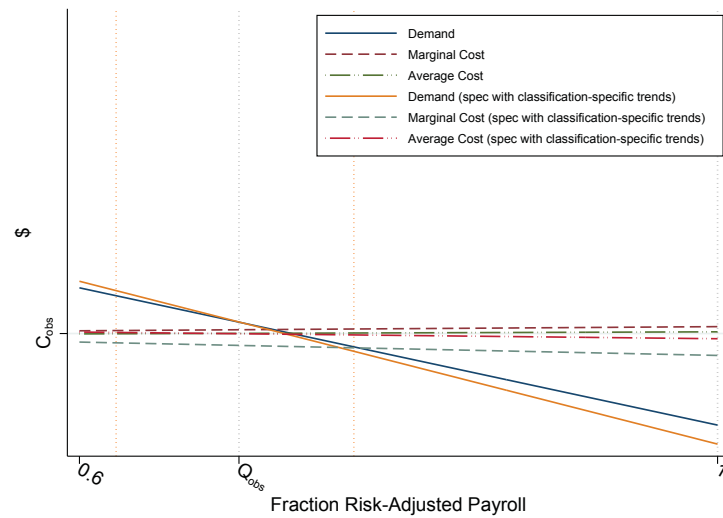
(b) Relatively Large Classifications



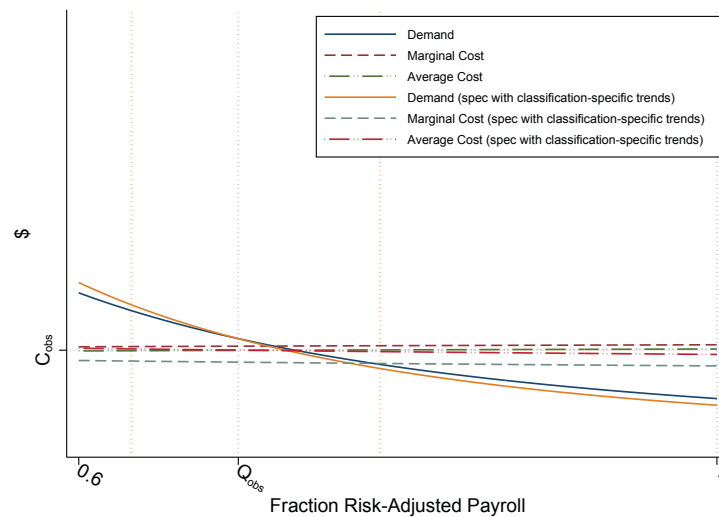
(c) Relatively Large Classifications

Notes: This figure presents monthly regressions in an event study framework zooming in on the months just surrounding a rate update to illustrate that the change in workers' compensation coverage takes place in the months after the update takes effect. Consider the eight months on either side of each rate update, pooling across all the rate updates during the sample period. In this figure, event time is normalized such that the update is implemented in month 1. This figure plots the coefficient estimates of β_n from appendix equation 5. Panel A displays estimates based on all classifications in the baseline sample. Because there are several smaller classifications with no newly initiated policies in a given month, we include these observations by using an inverse hyperbolic sine transformation. The remaining panels focus on relatively large classifications, for which this zero observation issue is not a major concern. Specifically, these specifications restrict attention to classifications with more than five workers' compensation policies initiated in each month of 2006, the first year of our sample. For these relatively large classifications, there are few months over the sample for which there are zero policies initiated, and thus the results are similar when using a $\ln(x)$ transformation (Panel B) or an inverse hyperbolic sine transformation (Panel C).

Figure A4: Selection: Graphical Illustration of Range of Magnitudes From Estimates



(a) Linear



(b) Constant Elasticity

Notes: The above figure depicts a graphical representation of demand and costs based on the empirical estimates in Table 5. While the selection estimates presented in the text are not statistically distinct from zero, this figure plots the implied marginal and average cost curves based on the point estimates from specifications with and without classification-specific time trends to give a sense of the magnitude of the point estimates. As discussed in the text, we obtain these curves by combining the estimated elasticities and aggregate summary statistics from the overall market on mean premiums, mean quantities, and mean combined insurer loss ratios. Panel A plots the estimates based on a linear extrapolation, while Panel B presents estimates based on a constant elasticity extrapolation. See Appendix Section C for further details on this calculation.

Table A1: Largest Classifications in Top and Bottom of Base Rate Distribution

Classification Code	Description	Payroll	Normalized Base Rate
Panel A: Largest Classifications in Lowest 5% of Base Rates			
8810	CLERICAL OFFICE EMPLOYEES	9.82E+10	0.17
8742	SALESPERSONS, COLLECTORS OR MESSENGERS	2.01E+10	0.30
8832	PHYSICIAN & CLERICAL	6.34E+09	0.28
8868	COLLEGE: PROFESSIONAL EMPLOYEES & CLERICAL	5.66E+09	0.41
8601	ARCHITECT OR ENGINEER - CONSULTING	5.33E+09	0.30
Panel B: Largest Classifications in Highest 5% of Base Rates			
6202	OIL OR GAS WELL & DRIVERS	1.50E+09	6.91
7538	ELECTRIC LIGHT OR POWER LINE CONSTRUCTION & DRIVERS	1.18E+08	11.42
5551	ROOFING - ALL KINDS & YARD EMPLOYEES, DRIVERS	1.10E+08	7.44
6238	CASING INSTALLATION - OIL WELL & DRIVERS	6.65E+07	8.89
3081	FOUNDRY - FERROUS - NOC	4.06E+07	6.96

Notes: The table above describes a selection of classifications with high and low relative base rates. Specifically, Panel A describes the largest classifications (as defined by 2006 covered payroll) within the lowest 5% of classifications in terms of the level of base rates. Panel B describes the largest classifications (as defined by 2006 covered payroll) within the highest 5% of classifications in terms of the level of base rates. The "Normalized Base Rate" reported in the table is the classification base rate divided by the mean base rate among covered payroll insured in 2006.

Table A2: Robustness: Workers' Compensation Classification Coding

Dependent Variable: $I(c_{j,t} \neq c_{j,t-1})$		
	(1)	(2)
$\Delta \ln(\text{relativeBaseRate})_{c_{j,t-1}}$	-0.022 (0.039) [0.579]	0.008 (0.027) [0.768]
Controls		
Employer Fixed Effects	x	x
Year Fixed Effects	x	x
Classification Fixed Effects		x
N	943,160	943,160
Mean Dep Var	0.089	0.089

Notes: The table above presents estimates from specifications as outlined in Appendix equation 11. These employer-year-level regressions include controls as listed above: employer fixed effects, year fixed effects, and classification fixed effects (in column 2). Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. The data used in these regressions cover the time period 2006-2011. For this analysis, the sample is employer-year observations where the employer is insured both in year t and year $t - 1$. Standard errors are clustered at the classification level. Both the classification-level clustering and the classification fixed effects described above are based on the classification in the prior year, $c_{j,t-1}$.

Table A3: Robustness: Demand Estimates Including Certified Self-Insured Employers

	Dependent Variable: $\ln(\text{total number covered firms}_{i,t})$					
	(1)	(2)	(3)	(4)	(5)	(6)
$\ln(\text{relativeBaseRate}_{i,t})$	-0.328 (0.094) [0.001]	-0.269 (0.089) [0.003]	-0.324 (0.107) [0.003]	-0.264 (0.101) [0.010]	-0.335 (0.096) [0.001]	-0.274 (0.089) [0.002]
$\ln(\text{relativeBaseRate}_{i,t+2})$			-0.01 (0.113) [0.927]	-0.015 (0.118) [0.898]		
$\ln(\text{uncappedRelativeBaseRate}_{i,t}) * I(\text{capBinding}_{i,t})$					0.012 (0.019) [0.533]	0.011 (0.016) [0.515]
Controls						
Classification Fixed Effects	x	x	x	x	x	x
Year Fixed Effects	x	x	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x		x

Notes: This table repeats the demand analysis in Table 3 Panel A using a broader sample that includes the certified self-insured employers as well as the employers purchasing insurance from workers' compensation insurers. The data used in these regressions cover the time period 2006-2011, where each observation represents a classification-year ($N=1,950$). The dependent variable is: $\ln(\text{total number of covered firms})$. Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. These classification-year-level regressions include controls as listed above: year fixed effects, classification fixed effects, and 2-digit classification-specific time trends (for specifications in the even columns). While columns 1 and 2 report the baseline specifications, the remaining columns report alternative specifications with additional variables: leads of the legislated base rates (columns 3 and 4) and uncapped base rates that were not ultimately adopted (columns 5 and 6). These uncapped base rates correspond to the *balanced indicated relative base rates* discussed in Appendix Section A. Robust standard errors are clustered at the classification level.

Table A4: Robustness: Eligible Population of Workers and Firms

Panel A: Entire Sample				
	ln(Total Number of Establishments)		ln(Total Number of Workers)	
	(1)	(2)	(3)	(4)
ln(relativeBaseRate _{<i>it</i>})	-0.012 (0.007) [0.105]	-0.008 (0.007) [0.307]	-0.012 (0.012) [0.338]	0.001 (0.019) [0.951]
Controls				
Industry Fixed Effects	x	x	x	x
Year Fixed Effects	x	x	x	x
Industry-specific Time Trend		x		x
N	1,170	1,170	1,138	1,138
Mean Dep Var	5.35	5.35	8.39	8.39
Panel B: Sample Restricted to NAICS Industries Mapping to One Classification				
	ln(Total Number of Establishments)		ln(Total Number of Workers)	
	(1)	(2)	(3)	(4)
ln(relativeBaseRate _{<i>it</i>})	-0.086 (0.061) [0.164]	-0.008 (0.084) [0.920]	-0.166 (0.134) [0.215]	-0.086 (0.155) [0.579]
Controls				
Industry Fixed Effects	x	x	x	x
Year Fixed Effects	x	x	x	x
Industry-specific Time Trend		x		x
N	352	352	331	331
Mean Dep Var	4.66	4.66	7.73	7.73

Notes: The table above presents estimates from specifications as outlined in Appendix equation 16. In this table, i is a 6-digit NAICS industry, and t is a year. In this specification, $\ln(b_{it})$ represents the natural logarithm of the mean base rate applicable in the industry based on a crosswalk between NAICS-classification codes. All specifications include year and industry fixed effects, and we estimate specifications with an additional control: a 4-digit NAICS industry-specific time trend. Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. The dependent variables are as indicated in the table. To analyze these variables, we take aggregate data on the universe of firms and workers at the NAICS industry-year level from the Quarterly Census of Employment and Wages (QCEW). We then match this to the classification-year-level workers' compensation premium variation utilizing a crosswalk that is derived from the administrative data. Starting with the pooled data across our analysis period, we use the observed NAICS industry-classification pairs to construct a frequency-weighted crosswalk under the assumption that the missing industry values are not selected. To remove outliers that may represent measurement error, we exclude industry-classification pairs that represent fewer than 50 observations or fewer than 5% of the observations associated with a particular NAICS industry code. Panel A presents the results for the entire sample, and Panel B focuses on the sample where there is a one-to-one match between the NAICS industry code and the workers' compensation classification code.

Table A5: Robustness: Selection Estimates With Additional Claim Measures

Panel A: Cost Outcomes, Dep Var: InvHypSine(Measure)								
Measure (\$ per \$100 risk-adjusted payroll)								
	Overall Costs (baseline)		Medical Costs		Income Benefit Costs		Predicted Costs	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\ln(\text{relativeBaseRate}_{it})$	-0.018 (0.163) [0.914]	0.047 (0.175) [0.790]	-0.019 (0.145) [0.894]	0.025 (0.161) [0.877]	0.013 (0.149) [0.928]	0.074 (0.154) [0.631]	-0.119 (0.129) [0.358]	-0.076 (0.131) [0.564]
Controls								
Classification Fixed Effects	x	x	x	x	x	x	x	x
Year Fixed Effects	x	x	x	x	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x		x		x
Mean Dep Var	2.34	2.34	1.91	1.91	1.44	1.44	2.18	2.18
Panel B: Claim Outcomes, Dep Var: InvHypSine(Measure)								
Measure (# per \$50K risk-adjusted payroll)								
	Claims		Serious Claims		Non-Serious Claims		Medical Only Claims	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\ln(\text{relativeBaseRate}_{it})$	0.00194 (0.01079) [0.857]	0.00908 (0.01177) [0.441]	0.00024 (0.00058) [0.683]	-0.00006 (0.00059) [0.917]	-0.00030 (0.00367) [0.934]	0.00371 (0.00439) [0.399]	0.00212 (0.00881) [0.810]	0.00570 (0.00980) [0.561]
Controls								
Classification Fixed Effects	x	x	x	x	x	x	x	x
Year Fixed Effects	x	x	x	x	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x		x		x
Mean Dep Var	0.097	0.097	0.001	0.001	0.026	0.026	0.069	0.069

Notes: The table above presents additional estimates relating to the degree of selection in this market. The coefficients reported above are from a difference-in-differences specification as outlined in equations 2 and 3 in the paper. These classification-year-level regressions include controls as listed above: year fixed effects, classification fixed effects, and 2-digit classification-specific time trends (for specifications in the even columns). Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. Robust standard errors are clustered at the classification level. The data used in these regressions cover the time period 2006-2011, where each observation represents a classification-year (N=1,950). The dependent variables are as listed in the table above. The "Predicted Cost" measure predicts costs in that classification-year by taking the observed number of claims in the classification-year in each category (serious, non-serious, and medical only) and associates with each claim the mean cost of claims in those categories within the classification across the sample period. See Appendix Section C for more details on the risk-adjustment used in this analysis.

Table A6: Additional Robustness: Selection Estimates

	Panel A: Dependent Variable:		InvHypSine($\frac{Cost_{jt}}{RiskAdjust_{jt} \times Payroll_{jt}}$)			
	(1)	(2)	(3)	(4)	(5)	(6)
$\ln(\text{relativeBaseRate}_{jt})$	-0.018 (0.163) [0.914]	0.047 (0.175) [0.790]	-0.004 (0.172) [0.979]	0.070 (0.190) [0.713]	-0.010 (0.168) [0.953]	0.048 (0.180) [0.790]
$\ln(\text{relativeBaseRate}_{j,t-2})$			-0.023 (0.158) [0.885]	-0.041 (0.175) [0.813]		
$\ln(\text{uncappedRelativeBaseRate}_{jt}) * I(\text{capBinding}_{jt})$					-0.015 (0.048) [0.762]	-0.003 (0.050) [0.958]
Controls						
Classification Fixed Effects	x	x	x	x	x	x
Year Fixed Effects	x	x	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x		x
	Panel B: Dependent Variable: $\ln(\text{riskAdjust}_{jt} \times \text{Payroll}_{jt})$					
	(1)	(2)	(3)	(4)	(5)	(6)
$\ln(\text{relativeBaseRate}_{jt})$	-0.431 (0.131) [0.001]	-0.363 (0.122) [0.003]	-0.369 (0.119) [0.002]	-0.316 (0.110) [0.004]	-0.432 (0.134) [0.001]	-0.365 (0.126) [0.004]
$\ln(\text{relativeBaseRate}_{j,t-2})$			-0.108 (0.089) [0.225]	-0.083 (0.081) [0.302]		
$\ln(\text{uncappedRelativeBaseRate}_{jt}) * I(\text{capBinding}_{jt})$					0.002 (0.017) [0.916]	0.003 (0.018) [0.852]
Controls						
Classification Fixed Effects	x	x	x	x	x	x
Year Fixed Effects	x	x	x	x	x	x
Classification-specific Time Trend, 2-digit		x		x		x

Notes: The table above presents additional robustness analysis for the selection estimation. These classification-year-level regressions include controls as listed above: year fixed effects, classification fixed effects, and 2-digit classification-specific time trends (for specifications in the even columns). Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. Robust standard errors are clustered at the classification level. The data used in these regressions cover the time period 2006-2011, where each observation represents a classification-year (N=1,950). The dependent variables are as listed in the table above, where overall costs are measured per \$100 of risk-adjusted payroll. Panel A reports regression estimates for costs relative to risk-adjusted payroll, and Panel B reports regression estimates for risk-adjusted payroll. Columns (1) and (2) report the baseline selection estimates with and without classification-specific time trends (from Table 5 in the text). Columns (3) and (4) report the results for analogous specifications with an extra term included: the natural logarithm of the base rate in effect two years prior. Columns (5) and (6) report the results from analogous specifications with an additional term: the hypothetical uncapped base rate if not for the final step in the update algorithm.

Table A7: Robustness: Welfare Calculations with Empirical Cost Curves

Panel A: Welfare Calculations				
	Linear		Constant Elasticity	
	Est (1)	Std Err (2)	Est (3)	Std Err (4)
Counterfactuals-Baseline (No Selection)				
Quantity (fraction risk-adjusted payroll covered)				
Mandate	1.000	-	1.000	-
Perfect Competition (Optimal)	0.734	(0.010)	0.737	(0.012)
Welfare per \$100 payroll (relative to status quo)				
Mandate	-0.2070	(0.0939)	-0.1175	(0.0502)
Perfect Competition (Optimal)	0.0041	(0.0011)	0.0043	(0.0012)
Counterfactuals-Empirical Cost Curves, Version 1 (Table 5 Panel A column 1)				
Quantity (fraction risk-adjusted payroll covered)				
Mandate	1.000	-	1.000	-
Optimal	0.722	(0.127)	0.724	(0.308)
Perfect Competition	0.733	(0.010)	0.737	(0.012)
Welfare per \$100 payroll (relative to status quo)				
Mandate	-0.2347	(0.2429)	-0.1407	(0.2027)
Optimal	0.0020	(0.0747)	0.0021	(0.0684)
Perfect Competition	0.0016	(0.0203)	0.0017	(0.0219)
Counterfactuals-Empirical Cost Curves, Version 2 (Table 5 Panel A column 2)				
Quantity (fraction risk-adjusted payroll covered)				
Mandate	1.000	-	1.000	-
Optimal	0.762	0.160	0.772	0.536
Perfect Competition	0.729	(0.011)	0.733	(0.013)
Welfare per \$100 payroll (relative to status quo)				
Mandate	-0.1705	(0.3070)	-0.0710	(0.2309)
Optimal	0.0137	(0.1116)	0.0148	(0.1291)
Perfect Competition	0.0103	(0.0235)	0.0110	(0.0256)
Panel B: Underlying Data				
Status Quo				
Quantity		0.70		0.70
Price		1.79		1.79
Expenses, % of Premiums		88%		88%
Panel C: Corresponding Demand and Cost Curves				
	Linear		Constant Elasticity	
	Est (1)	Std Err (2)	Est (3)	Std Err (4)
Demand Curve, Version 1				
Constant	5.94	(1.43)	0.77	(0.18)
Slope	-5.96	(2.05)	-2.32	(0.80)
Average Cost Curve, Version 1				
Constant	1.51	(0.55)	1.59	(0.20)
Slope	0.09	(0.78)	0.04	(0.35)
Marginal Cost Curve, Version 1				
Constant	1.51	(0.55)	1.66	(0.79)
Slope	0.18	(1.57)	0.04	(0.35)
Demand Curve, Version 2				
Constant	6.72	(2.14)	0.66	(0.20)
Slope	-7.07	(3.06)	-2.75	(1.19)
Average Cost Curve, Version 2				
Constant	1.77	(0.66)	1.50	(0.24)
Slope	-0.29	(0.95)	-0.13	(0.42)
Marginal Cost Curve, Version 2				
Constant	1.77	(0.66)	1.31	(0.90)
Slope	-0.58	(1.90)	-0.13	(0.42)

Notes: The table above presents an alternative specification of the welfare calculations as discussed in Section 5 utilizing the implied empirical cost curves based on the elasticities in Table 5 Panel A. Panel A displays the welfare calculations, Panel B reports the underlying summary statistics, and Panel C reports the corresponding point estimates. In Panel C, the reported “constant” and “slope” in the constant elasticity specification ($P = A Q^\beta$) refer to A and β , respectively; in the linear specification ($P = A + \beta Q$), the “constant” and “slope” refer to A and β , respectively. The counterfactuals are conducted using two alternative parametric specifications for demand and costs: linear (displayed in columns 1 and 2) and constant elasticity (displayed in columns 3 and 4). The table reports welfare measured in dollars per \$100 of risk-adjusted payroll. In addition, the table reports two scaled measures of welfare to ease interpretation: (i) welfare as a percent of the mean cost of the insured in the status quo (one measure of the size of the market) and (ii) welfare measures scaled by \$50K, approximately the mean annual earnings for this population. The table reports bootstrapped standard errors clustered at the classification level, where 1,000 randomly drawn bootstrap samples are used. See Table 7 and Appendix Section C for further details on the welfare calculations.

Table A8: Robustness: Selection Estimates Under Alternative Incidence Assumptions

Panel A: Risk-Adjusted Covered Payroll, $\ln(\text{riskAdj}_{it} \times \text{NormalizedPayroll}_{it})$												
% of premiums borne by employees												
	0% (baseline)		10%		25%		50%		100%			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
$\ln(\text{relativeBaseRate}_{it})$	-0.431	-0.363	-0.426	-0.359	-0.419	-0.352	-0.407	-0.340	-0.380	-0.313		
	(0.131)	(0.122)	(0.131)	(0.122)	(0.131)	(0.122)	(0.131)	(0.122)	(0.130)	(0.122)		
	[0.001]	[0.003]	[0.001]	[0.004]	[0.002]	[0.004]	[0.002]	[0.006]	[0.004]	[0.011]		
Controls												
Classification Fixed Effects	x	x	x	x	x	x	x	x	x	x		
Year Fixed Effects	x	x	x	x	x	x	x	x	x	x		
Classification-specific Time Trend, 2-digit		x		x		x		x		x		
Panel B: Risk-Adjusted Costs, $\text{IHS}\left(\frac{\text{Cost}_{it}}{\text{riskAdj}_{it} \times \text{NormalizedPayroll}_{it}}\right)$												
% of premiums borne by employees												
	0% (baseline)		10%		25%		50%		100%			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
$\ln(\text{relativeBaseRate}_{it})$	-0.018	0.047	-0.013	0.051	-0.007	0.058	0.005	0.070	0.030	0.097		
	(0.163)	(0.175)	(0.163)	(0.175)	(0.163)	(0.176)	(0.164)	(0.176)	(0.165)	(0.179)		
	[0.914]	[0.790]	[0.935]	[0.772]	[0.967]	[0.743]	[0.978]	[0.694]	[0.855]	[0.589]		
Controls												
Classification Fixed Effects	x	x	x	x	x	x	x	x	x	x		
Year Fixed Effects	x	x	x	x	x	x	x	x	x	x		
Classification-specific Time Trend, 2-digit		x		x		x		x		x		
Implied	$\frac{\partial \text{IHS}\left(\frac{\text{Cost}_{it}}{\text{riskAdj}_{it} \times \text{NormalizedPayroll}_{it}}\right)}{\partial \ln(\text{riskAdj}_{it} \times \text{NormalizedPayroll}_{it})}$		0.042	-0.129	0.031	-0.142	0.017	-0.165	-0.012	-0.206	-0.079	-0.310

Notes: The table above presents additional robustness analysis relating to the degree of selection in this market. This robustness analysis repeats the analysis in Table 5 under alternative incidence assumptions for the underlying demand estimates. These classification-year-level regressions include controls as listed above: year fixed effects, classification fixed effects, and 2-digit classification-specific time trends (in even columns only). Each column represents a separate regression, where the estimated coefficients are displayed along with the associated standard errors in parentheses and p-values in brackets. The data used in these regressions cover the time period 2006-2011, where each observation represents a classification-year (N=1,950). The dependent variables are as listed in the table above, where overall costs are measured per \$100 of risk-adjusted payroll. Robust standard errors are clustered at the classification level.

Table A9: Robustness: Welfare Analysis Under Alternative Incidence Assumptions

	Welfare Calculations											
	Linear						Constant Elasticity					
	% of premiums borne by employees						% of premiums borne by employees					
	0% (baseline)		50%		100%		0% (baseline)		50%		100%	
Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	Est	Std Err	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Counterfactuals												
Quantity (fraction risk-adjusted payroll covered)												
Mandate	1.000	-	1.000	-	1.000	-	1.000	-	1.000	-	1.000	-
Perfect Competition (Optimal)	0.734	(0.010)	0.738	(0.010)	0.743	(0.010)	0.737	(0.012)	0.742	(0.012)	0.746	(0.012)
Welfare (relative to status quo)												
Mandate												
per \$100 of risk-adjusted payroll	-0.2070	(0.0939)	-0.2100	(0.1137)	-0.2161	(0.1360)	-0.1175	(0.0502)	-0.1192	(0.0436)	-0.1223	(0.0679)
scaled by \$50,000	-103.48	(46.97)	-105.01	(56.87)	-108.05	(67.99)	-58.76	(25.10)	-59.60	(21.82)	-61.14	(33.97)
% of mean cost	-13.16%	(5.97%)	-13.36%	(7.23%)	-13.74%	(8.65%)	-7.47%	(3.19%)	-7.58%	(2.77%)	-7.78%	(4.32%)
Perfect Competition (Optimal)												
per \$100 of risk-adjusted payroll	0.0041	(0.0011)	0.0039	(0.0011)	0.0036	(0.0012)	0.0043	(0.0012)	0.0041	(0.0035)	0.0039	(0.0026)
scaled by \$50,000	2.03	(0.56)	1.94	(0.57)	1.82	(0.58)	2.16	(0.62)	2.06	(1.74)	1.94	(1.30)
% of mean cost	0.26%	(0.07%)	0.25%	(0.07%)	0.23%	(0.07%)	0.27%	(0.08%)	0.26%	(0.22%)	0.25%	(0.17%)
Subsidy to support optimal allocation--25% MDWL of taxation												
per \$100 of risk-adjusted payroll	-0.0363	(0.0006)	-0.0367	(0.0006)	-0.0372	(0.0006)	-0.0362	(0.0021)	-0.0367	(0.0037)	-0.0372	(0.0060)
scaled by \$50,000	-18.15	(0.28)	-18.37	(0.29)	-18.61	(0.29)	-18.12	(1.04)	-18.35	(1.85)	-18.58	(2.98)
% of mean cost	-2.31%	(0.04%)	-2.34%	(0.04%)	-2.37%	(0.04%)	-2.30%	(0.13%)	-2.33%	(0.24%)	-2.36%	(0.38%)

Notes: This table repeats the welfare analysis in Table 7 under various alternative assumptions regarding the incidence of workers' compensation premium changes. For the linear specification, the baseline results with 0% of premium changes borne by employees are displayed in columns 1 and 2, columns 3 and 4 repeat the analysis assuming that 50% of premium changes are borne by employees, and columns 5 and 6 repeat the analysis under the assumption that 100% of premium changes are borne by employees. The analogous results for the constant elasticity specifications are reported on columns 7 through 12. The table reports bootstrapped standard errors clustered at the classification level, where 1,000 randomly drawn bootstrap samples are used. See Table 7 and Appendix Section C for further details on the welfare calculations.

Individual Insurance Market Performance in Early 2019

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Published: Jun 27, 2019

Issue Brief

The early years of the Affordable Care Act (ACA) exchanges and broader ACA-compliant individual market were marked by volatility. Markets in some parts of the country have remained fragile, with little competition, an insufficient number of healthy enrollees to balance those who are sick, and high premiums as a result. However, [by 2017](https://www.kff.org/health-reform/issue-brief/individual-insurance-market-performance-in-2017/) (<https://www.kff.org/health-reform/issue-brief/individual-insurance-market-performance-in-2017/>), the individual market generally had begun to stabilize. Despite this growing stability, in 2018 insurers raised benchmark premiums by an average of 34% in response to policy changes such as the Trump Administration's decision to cease cost-sharing subsidy payments and reduce funding for outreach, and uncertainty over whether the ACA as a whole would remain law. These premium hikes, along with slow claims growth, made 2018 the most profitable year for individual market insurers since the ACA went into effect.

Premiums [fell slightly](https://www.kff.org/health-costs/issue-brief/how-aca-marketplace-premiums-are-changing-by-county-in-2019/) (<https://www.kff.org/health-costs/issue-brief/how-aca-marketplace-premiums-are-changing-by-county-in-2019/>) on average for 2019, as it became clear that some insurers had raised 2018 rates more than was necessary. It is likely that 2019 premiums would have dropped even more if not for [two major policy changes](https://www.kff.org/health-costs/issue-brief/how-repeal-of-the-individual-mandate-and-expansion-of-loosely-regulated-plans-are-affecting-2019-premiums/) (<https://www.kff.org/health-costs/issue-brief/how-repeal-of-the-individual-mandate-and-expansion-of-loosely-regulated-plans-are-affecting-2019-premiums/>) that put upward pressure on prices: Congress' decision to reduce the individual mandate penalty to \$0 effective in 2019 and the Trump administration's new rules allowing more loosely regulated short-term plans to expand on the individual market in competition with ACA-compliant coverage. Both of these changes sparked fears that healthy enrollees would increasingly choose to enroll in short-term plans or to go uninsured altogether, leaving the individual market with a sicker risk pool for 2019.

In this analysis, we look at financial data from the first quarter of 2019 to examine how the individual insurance market has responded to these recent changes. We use financial data reported by insurance companies to the National Association of Insurance Commissioners and compiled by Mark Farrah Associates to look at the average premiums, claims, medical loss ratios, and gross margins from first quarter 2011 through

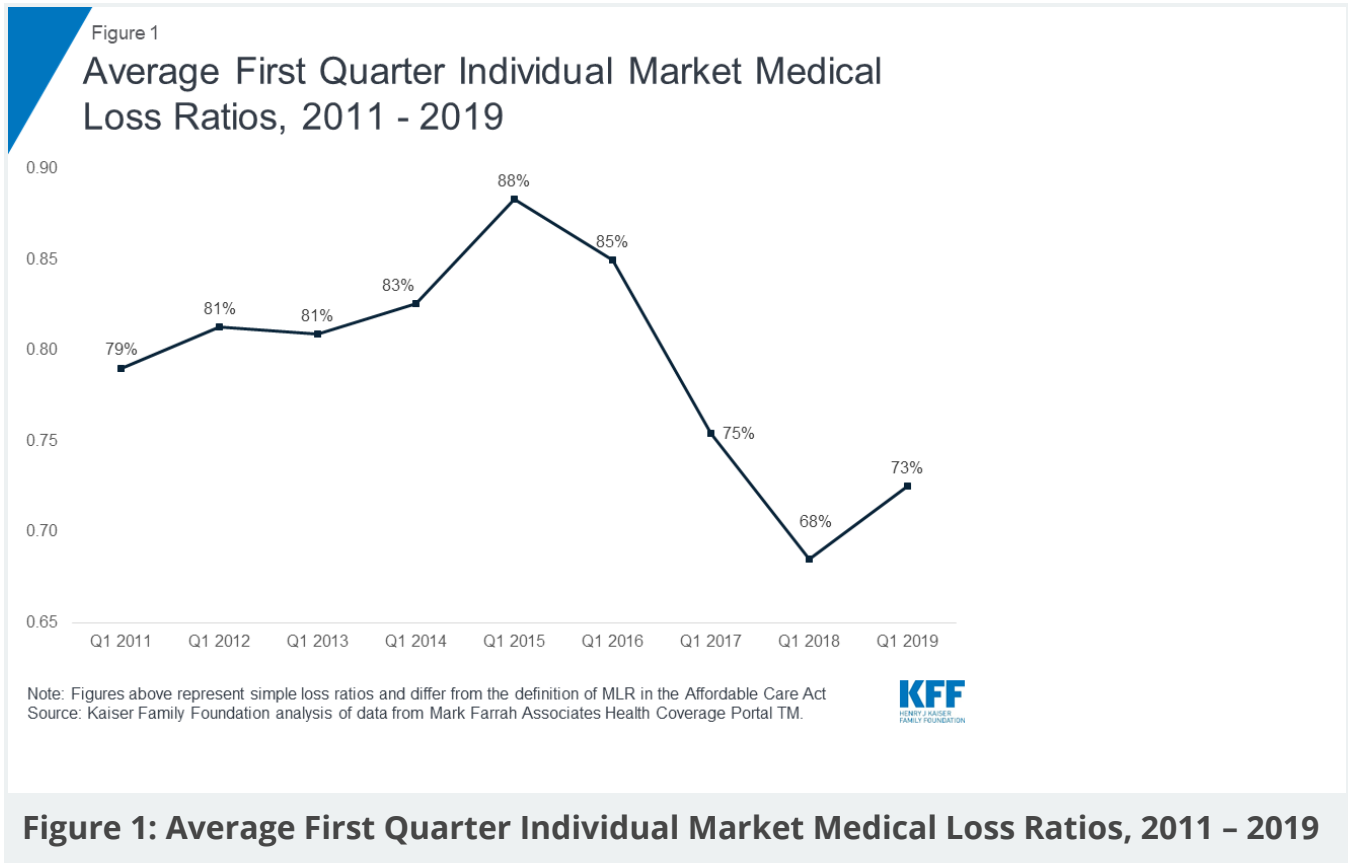
first quarter 2019 in the individual insurance market. These figures include coverage purchased through the ACA's exchange marketplaces and ACA-compliant plans purchased directly from insurers outside the marketplaces (which are part of the same risk pool), as well as individual plans originally purchased before the ACA went into effect.

These new data from the first three months of 2019 suggest that insurers in the individual market remain profitable, even with average premiums falling for the first time since the ACA was implemented. These data indicate that the individual market appears to be stable so far in 2019, despite the repeal of the individual mandate (https://www.kff.org/health-reform/issue-brief/how-many-of-the-uninsured-can-purchase-a-marketplace-plan-for-less-than-their-shared-responsibility-penalty/?utm_campaign=KFF-2017-November-Ind-Mandate-Penalty-Analysis&utm_source=hs_email&utm_medium=email&hsenc=p2ANqtz--GPbhQryF71Zmxxh7bbkIEYsSQdn25E_NZijeBfNvZRSOcqCjCCnFLGR1AGtoKJP5Y0LT) penalty and the proliferation of loosely-regulated short-term insurance (<https://www.kff.org/health-reform/issue-brief/understanding-short-term-limited-duration-health-insurance/>) plans.

Medical Loss Ratios

As we found in our previous analysis (<http://www.kff.org/health-reform/issue-brief/insurer-financial-performance-in-the-early-years-of-the-affordable-care-act/>), insurer financial performance as measured by loss ratios (the share of health premiums paid out as claims) worsened in the earliest years of the ACA marketplaces, but began to improve more recently. This is to be expected, as the market had just undergone significant regulatory changes in 2014 and insurers had very little information to work with in setting their premiums.

The chart below shows simple loss ratios, which differ from the formula used in the ACA's medical loss ratio (MLR) provision.¹ Loss ratios began to decline in 2016, suggesting improved financial performance. In 2017, following relatively large premium increases, individual market insurers saw significant improvement in loss ratios, a sign that individual market insurers on average were beginning to better match premium revenues to claims costs. Loss ratios continued to fall in 2018, suggesting that insurers were able to build in the loss of cost-sharing subsidy payments when setting premiums and some insurers likely over-corrected. With such low loss ratios, insurers generally could not justify premium hikes for 2019, and loss ratios for the first quarter of 2019 rose to 73%.



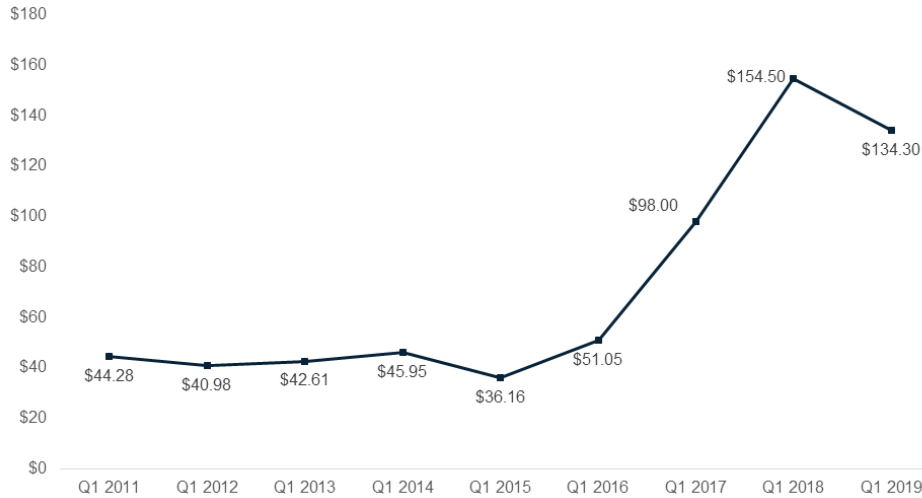
First quarter loss ratios tend to follow the same pattern as annual loss ratios, but in recent years have been between 2 and 10 percentage points lower than annual loss ratios.² Though 2019 annual loss ratios are therefore likely to end up higher than 73%, this is nevertheless a sign that individual market insurers on average are on a continuing path towards sustained profitability.

Margins

Another way to look at individual market financial performance is to examine average gross margins per member per month, or the average amount by which premium income exceeds claims costs per enrollee in a given month. Gross margins are an indicator of performance, but positive margins do not necessarily translate into profitability since they do not account for administrative expenses.

Figure 2

Average First Quarter Individual Market Gross Margins Per Member Per Month, 2011 - 2019



Source: Kaiser Family Foundation analysis of data from Mark Farrah Associates Health Coverage Portal TM



Figure 2: Average First Quarter Individual Market Gross Margins Per Member Per Month, 2011 - 2019

Gross margins show a similar pattern to loss ratios. Insurer financial performance declined slightly from the first quarter of 2018 to 2019, but margins were still higher than all other previous years through 2017. Again, first quarter data tend to indicate the general direction of the annual trend, and while annual 2019 margins are unlikely to end as high as they are in the first quarter, these data suggest that insurers in this market remain on average financially healthy.

Blue Cross Blue Shield affiliated insurers (“Blue insurers”) have consistently had higher gross margins in the individual market than other insurers (“non-Blue insurers”). This performance gap widened each year from the first quarter of 2015 to 2018, reaching a peak difference of \$113 in early 2018, but appears to be narrowing again during the first three months of 2019. Total premiums per person are higher for Blue insurers, on average, and claims costs are also slightly higher. While the Blues have seen a decline in gross margins in the first quarter of 2019, other plans have continued to see their margins increase somewhat.

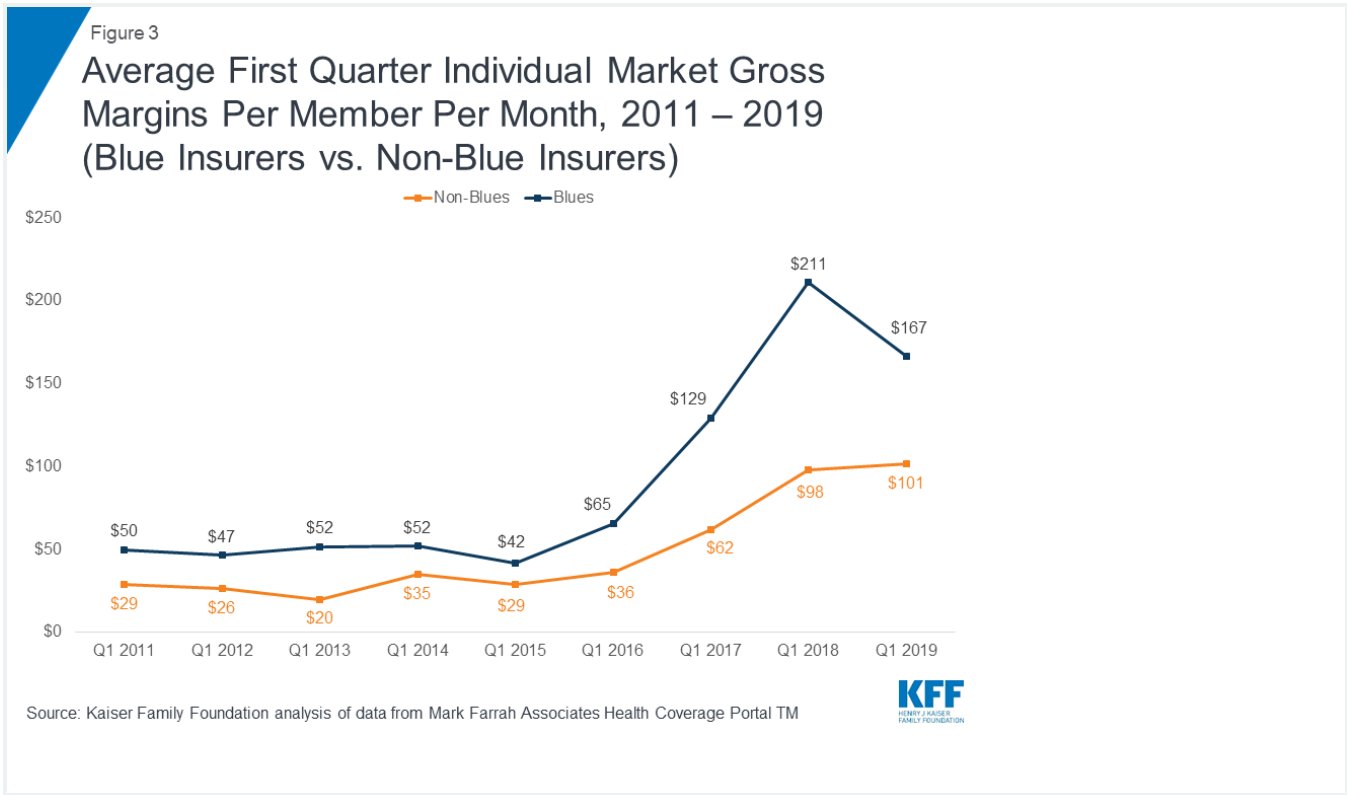


Figure 3: Average First Quarter Individual Market Gross Margins Per Member Per Month, 2011 – 2019 (Blue Insurers vs. Non-Blue Insurers)

Underlying Trends

Following record insurer margins in 2018, premiums per enrollee fell slightly on average for 2019 while claims costs continued to grow at a similar pace to previous years. On average, premiums per enrollee fell 0.4% from early 2018 to 2019, while per person claims grew 5%.

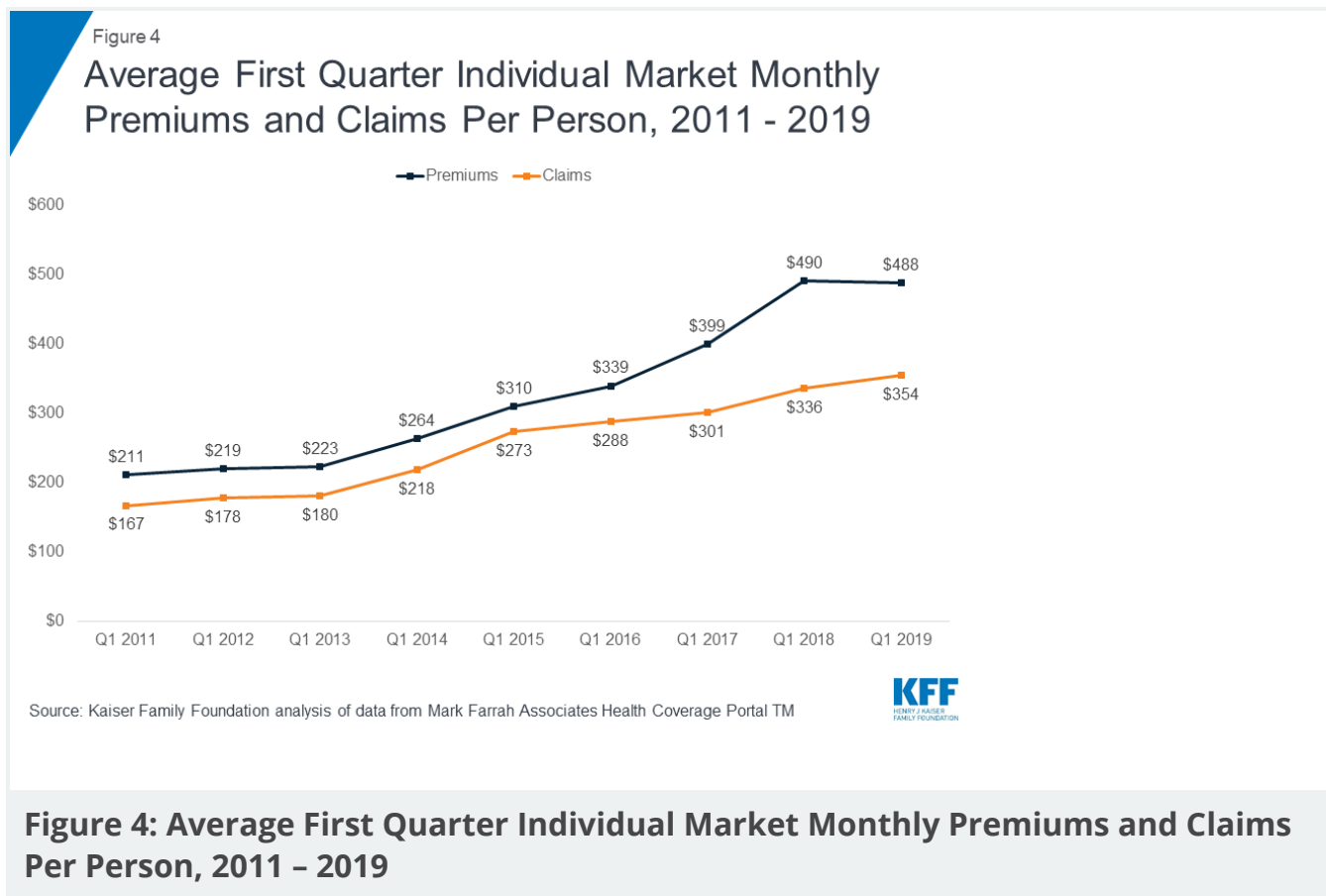


Figure 4: Average First Quarter Individual Market Monthly Premiums and Claims Per Person, 2011 - 2019

One concern about the effective repeal of the individual mandate that took effect for 2019, along with the expansion of short-term plans, was whether healthy enrollees would drop out of the market in large numbers. The still modest growth in claims costs during the first three months of 2019 suggests that these policy changes did not cause as many healthy enrollees to leave the individual market as was feared.

Taken together, these data suggest that the individual market risk pool is relatively stable, though sicker on average than the pre-ACA market, which is to be expected since people with pre-existing conditions have guaranteed access to coverage under the ACA.

Discussion

Results from early 2019 suggest that despite recent policy changes and enrollment declines, many insurers continue to make a profit in the individual insurance market, on average. Premium and claims data support the notion that large 2018 premium increases were in large part compensating for policy uncertainty and the termination of cost-sharing subsidy payments, and some insurers appear to have over-compensated. Thus, insurers could not justify large rate increases for 2019 and premium growth slowed significantly, leading to a slight downturn in insurer performance in early 2019. Continued modest growth in claims costs in early 2019 indicates that the repeal of the individual mandate penalty and expansion of short-term insurance plans did not leave the individual market significantly less healthy.

While markets in some parts of the country, especially in rural areas, remain more fragile with high premiums, the individual market on average appears stable. Some insurers exited the market in previous years, but others have been successful and expanded their footprints, as would be expected in a competitive marketplace. Insurers are beginning to file proposed rates for 2020. So far, insurers are requesting modest premium increases, ranging from an average 3% decrease in Maryland (<http://www.healthrates.mdinsurance.state.md.us/AllNewRateReq.aspx?MrktType=zs4Cd4Viifkdja1Fgq+12YyGdO9GYImw1kr5npCkwn4=&mode=9NfG4TBVuCxYttKAM9SID4/yAfWuSDX3/zSX7xBpwJA=>) to a 13% increase in Vermont (<http://acasignups.net/19/05/14/vermont-preliminary-2020-aca-exchange-premium-rate-changes-130-increase>). With a continuing legal battle (<https://affordablecareactlitigation.files.wordpress.com/2018/12/Texas-v.-US-partial-summary-judgment-decision.pdf>) threatening the very existence of the ACA, significant uncertainties (<https://www.kff.org/health-reform/fact-sheet/potential-impact-of-texas-v-u-s-decision-on-key-provisions-of-the-affordable-care-act/>) remain. However, earlier concerns that the market would collapse or insurer exits would lead to counties with no coverage available at all have proven unfounded.

Methodology

Methods

We analyzed insurer-reported financial data from Health Coverage Portal TM, a market database maintained by Mark Farrah Associates, which includes information from the National Association of Insurance Commissioners. The dataset analyzed in this report does not include NAIC plans licensed as life insurance or California HMOs regulated by California's Department of Managed Health Care; in total, the plans in this dataset represent at least 80% of the individual market. All figures in this issue brief are for the individual health insurance market as a whole, which includes major medical insurance plans and mini-med plans sold both on and off exchange. We excluded some plans that filed negative enrollment, premiums, or claims and corrected for plans that did not file "member months" in the annual statement but did file current year membership. We excluded plans showing greater than 1,000 hospital days per member per month.

To calculate the weighted average loss ratio across the individual market, we divided the market-wide sum of total incurred claims by the sum of all unadjusted health premiums earned. Medical loss ratios in this analysis are simple loss ratios and do not adjust for quality improvement expenses, taxes, or risk program payments. Gross margins were calculated by subtracting the sum of total incurred claims from the sum of unadjusted health premiums earned and dividing by the total number of member months (average monthly enrollment) in the individual insurance market.

Endnotes

Issue Brief

1. The loss ratios shown in this issue brief differ from the definition of MLR in the ACA, which makes some adjustments for quality improvement and taxes, and do not account for reinsurance, risk corridors, or risk adjustment payments. Reinsurance payments, in particular, helped offset some losses insurers would have otherwise experienced. However, the ACA's reinsurance program was temporary, ending in 2016, so loss ratio calculations excluding reinsurance payments are a good indicator of financial stability going forward.

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2. Although first quarter loss ratios and margins generally follow a similar pattern as annual data, starting in 2014 with the move to an annual open enrollment that corresponds to the calendar year, first quarter MLRs have been about 2 – 10 percentage points lower than annual loss ratios in the same year. This is because renewing existing customers, as well as new enrollees, are starting to pay toward their deductibles in January, whereas pre-ACA, renewals would occur throughout the calendar year.

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How Congress Should Deal with Surprise Medical Bills for Patients

Doug Badger

KEY TAKEAWAYS

Congress should fully examine the nature, extent, and causes of surprise medical bills, including how earlier federal policies may have compounded the problem.

If Congress acts on surprise bills, it should limit any legislation to self-funded plans that are beyond the reach of state regulators.

Congress should empower consumers, who need more information, freedom, and control of their own health care spending.

The federal government and most states are seeking to prohibit surprise medical bills, usually defined as bills from non-network providers for care provided at network facilities, as well as bills for emergency care. Surprise billing disadvantages patients and benefits insurers, hospitals, and other providers.

Leading congressional proposals to address these concerns fall short. None reduces medical costs, and instead will induce insurers and providers to shift the costs of the new mandates back to patients in opaque ways. Patients will bear the costs of “patient protections,” most likely through higher premiums, higher cost-sharing, and more restrictive provider networks.

Instead of choosing among competing “patient protections” proffered by representatives of industries that benefit from surprise bills, Congress should pursue broader reforms that promote choice and

This paper, in its entirety, can be found at <http://report.heritage.org/ib4975>

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competition, minimize government interference and regulation, and ensure a level playing field between market actors by allowing patients to take more control of their medical care.

Background

Most privately insured consumers have coverage that distinguishes between network and non-network providers. Their policies offer strong financial incentives to seek care in network facilities and from network physicians. Consumers have responded to these incentives by checking to see that a doctor, hospital, or other facility is part of their insurance network before making medical appointments. But there is a catch: A patient whose knee surgery is performed by a network doctor at a network facility, for example, may learn only after the procedure that the anesthesiologist was not part of her insurance network, resulting in a surprise bill.

State and federal policymakers rightly want to ban this practice. As of March, seven states already had such laws in place, while 22 others had bills under consideration.¹ President Donald Trump has called on federal lawmakers to address the issue.² Several bills have been introduced in Congress. Both the Senate Committee on Health Education, Labor and Pensions (HELP) and the House Energy and Commerce Committee are advancing bipartisan legislation that includes provisions dealing with surprise medical bills.³

There is little data to help policymakers make informed decisions and the data that do exist suggest that the problem of surprise medical bills is most prevalent in circumstances where Congress already has tried to prevent them: out-of-network emergency department (ED) claims.

A provision of the Affordable Care Act (ACA) prohibits insurers from placing

any limitation on coverage where the provider of services does not have a contractual relationship with the plan for the providing of services that is more restrictive than the requirements or limitations that apply to emergency department services received from providers who do have such a contractual relationship to the plan.⁴

The statute goes on to require that “if such services are provided out-of-network, the cost-sharing requirement...is the same requirement that would apply if such services were provided in-network.”⁵

The provision may seem well-intentioned. Someone with acute and severe symptoms should be able to seek emergency care at the nearest

facility without facing a financial penalty if that facility is out of network. The provision was designed to protect patients from surprise bills when they were treated at non-network EDs.

However, this provision may have had the opposite effect. According to two recent studies, patients are most likely to receive surprise medical bills if they are treated at an ED. That pattern holds whether the ED is at a network or non-network facility.

A 2018 review of a sample of medical claims submitted to self-funded plans found that only 3.3 percent of non-ED outpatient encounters at network facilities included a claim from a non-network provider. This suggests that policymakers might want to gather more information about this practice before taking sweeping regulatory action.

That same study, however, reported that 17.8 percent of outpatient encounters at network facilities that involved an ED visit resulted in a bill from a non-network provider.⁶ That figure rises to nearly one in five ED encounters when both network and non-network facilities are included.⁷ A widely cited 2017 study similarly found that between 14 percent and 20 percent of ED visits may result in surprise bills.⁸ It also found that these non-network claims were highly concentrated in a small group of hospitals. Specifically, it found that half of hospitals issued surprise bills less than 2 percent of the time, while 15 percent did so 80 percent of the time.⁹

It also found that such bills were more common in hospitals that contracted with particular ED staffing agencies.¹⁰ This suggests that a potentially small number of providers are disproportionately responsible for surprise billing for ED services and they may have devised practices that enable them to shift the costs imposed by the emergency care mandate Congress enacted in 2010 to patients.

Adopting a sweeping and unprecedented new set of federal mandates to address poorly understood problems that appear to have arisen from existing federal mandates is likely to produce bad policy that will have similarly unintended adverse consequences for patients.

Leading Federal Legislation on Surprise Billing

Congress seems nonetheless poised to move legislation quickly to deal with the issue. Both the Senate HELP Committee and the House Energy and Commerce Committee, as noted above, have produced bipartisan legislative text.

The two bills differ in a variety of ways, most particularly in the scope of the Senate bill, which is not confined to surprise medical bills, but also

offers policy prescriptions to address health care costs more broadly. While they also take slightly different approaches to surprise bills, both share two common overarching features.

First, both would hold patients harmless from surprise medical bills both for emergency care and for non-emergency care provided at in-network facilities.¹¹ When enrollees receive out-of-network medical care at a network facility, insurers would only be able to require them to pay in-network cost-sharing amounts, a requirement similar to the ACA provision on care received at out-of-network EDs. Using the example above, a patient whose knee surgery is performed by a network physician at a network facility would pay in-network cost-sharing rates for each of the services—and could not be presented with a surprise bill from the non-network anesthesiologist.

Second, both drafts would require non-network ED physicians (whether administering care at network or non-network facilities) and non-network physicians practicing at network facilities to accept the median rate an insurer pays network providers as payment in full. This approach is conceptually flawed, poorly suited to resolving a poorly understood problem, and one whose consequences are potentially far-reaching. Its conceptual flaws are obvious and have been noted elsewhere.¹² A regulated price is unlikely to match the market price.¹³ If it is too high, physicians will be reluctant to participate in an insurer's network; if too low, insurers will have little incentive to form networks.¹⁴

Given that the insurance industry supports this approach and providers oppose it, the groups with the greatest economic stake in the matter appear to believe that the price is lower than providers otherwise might be paid. If so, providers can be expected to respond to the lower reimbursement by raising rates elsewhere, by increasing volume, or by other means, as some providers have done in response to the existing ED mandate.¹⁵

This leads to the proposal's design problem. It requires non-network providers to accept the median reimbursement paid to a plan's network providers. Put another way, a plan would pay non-network providers less than it pays *half* of its network providers. This diminishes the utility of network contracts.¹⁶

Finally, if government rate setting is viewed as a "patient protection" in these circumstances, it will lead to efforts to "protect" patients through government rate setting in others. This will produce further market distortions in an already distorted market. Consumers are better served by a market system in which they wield economic clout than by one in which government "protects" them through price setting.

Other Options for Dealing with Surprise Bills

A May 2019 bipartisan discussion draft bill produced by the Chairman and ranking Democrat on the Senate HELP Committee included two additional options for dealing with surprise medical bills: (1) requiring insurers and non-network providers to submit their disputes to binding arbitration, and (2) requiring insurers, hospitals, and non-network providers to enter into contractual arrangements to set non-network fees.

Arbitration. The committee draft proffered the option of forcing insurers and non-network physicians practicing at network facilities to resolve their differences through binding arbitration. More specifically, it instructed the Secretary of Health and Human Services (HHS), “in consultation with the Secretary of Labor, [to] establish an independent dispute resolution [IDR] process...for resolving disputes” between insurers and providers.¹⁷ It further required HHS to certify entities to run the IDR process, “taking into consideration whether each applicant entity is unbiased and unaffiliated with health plans and health insurance issuers and providers and free of conflicts of interest.”¹⁸

These requirements impose several administrative challenges. First, the Secretary would have to determine whether an entity (or, more particularly, its board, officers, and arbiters) was “unbiased.” This is an inherently subjective standard and one that is almost impossible to precisely define and effectively enforce. Second, it required IDR entities to be knowledgeable enough about health care markets to set market prices, yet unaffiliated with entities that participate in those markets. An IDR might recruit retired hospital CEOs, physicians, and insurance executives to serve as arbiters. That would meet the letter of the draft (which appears only to bar current, as opposed to past, affiliation), but not its spirit. More likely, the IDRs would have to seek out people who have arbitrated contractual disputes in unrelated fields on the assumption that procedural skills can substitute for substantive knowledge of health care markets.

The IDR entity would choose between final offers tabled respectively by the insurer and provider.¹⁹ The discussion draft directed the IDR entity to select the “more reasonable” offer as the applicable rate. It provided little guidance for determining reasonableness.

In effect, arbitration merely outsources rate setting to arbitrators whose impartiality and lack of current industry affiliation is presumed to give them insight into what the market price for a service should be. There is little reason to believe that government-contracted arbiters will possess these faculties.

Finally, the arbitration concept is ill suited to the circumstances that Congress is seeking to address. Arbitration generally occurs in disputes arising from parties to a contract. These contracts commonly include a clause in which both parties agree to resolve their contractual disputes through arbitration.

Here, there is no contract. The two parties have declined to enter into one. Nor have they agreed to arbitration. The government has simply decreed it. For this reason, although proponents often cite “baseball arbitration” as their model, that reference is especially inapt.²⁰

Contract Matching. Another option would prevent insurers from including a hospital or facility in its network unless each physician and provider of laboratory and diagnostic services is under contract as a participating provider.²¹ Non-network physicians would have a choice between contracting directly with the insurer or having their fees included in the amount the insurer pays the facility.²²

Under this option, hospitals, doctors, and insurers would resolve their differences through private negotiation. Each party has, implicitly or explicitly, represented itself as being in the consumer’s insurance network. Each derives economic benefit from the arrangement. Hospitals and ambulatory surgical centers need anesthesiologists, and anesthesiologists need patients to anesthetize. Insurers need hospitals to agree to discounted rates, and hospitals need insurance companies to steer paying patients their way. This option leaves it to the various parties to work out contractual terms that best balance their respective interests.

Though less problematic than the alternatives, contract matching involves federal interference in private contracts. While it may be appropriate for government to ensure that consumers are not misled into thinking that they will be charged in-network cost-sharing rates when they seek care from a network physician at a network facility, it also is objectionable for the government to compel parties to establish contractual relationships.²³

Conclusion

The problem of surprise medical bills is one whose nature and extent is still emerging. The practice benefits various segments of the health care industry at the expense of patients. The federal government may have inadvertently exacerbated the problem in 2010 by enacting legislation to protect patients from surprise bills when they receive care at non-network emergency departments. Adopting another round of “patient protection” mandates will likely inspire new efforts to shift the costs of these mandates to patients. Congress should instead consider the following steps:

1. **Slow down.** The political imperative to pass laws against surprise bills is powerful. The Senate HELP Committee and the House Energy and Commerce Committee are to be commended for proceeding in a bipartisan way, rather than reverting to partisan bickering. The committees should use this bipartisan moment to inquire more extensively into the nature, extent, and causes of the practice, including an examination of how earlier patient protection legislation may inadvertently have contributed to it.
2. **Limit the law's reach.** If Congress does legislate in this area, it should limit its reach. Federal intervention into health insurance markets that have traditionally been regulated by states has not worked out well for consumers. Premiums have skyrocketed, insurance markets have consolidated, cost-sharing requirements have grown more burdensome, networks have constricted, and choices have narrowed. If Congress does act on surprise bills, it should limit the legislation to self-funded plans that are beyond the reach of state regulators. Several states have gotten the jump on Congress in addressing this issue. States—including those that choose not to adopt new mandates—should be free to regulate their fully insured markets without federal interference.
3. **Be wary of solutions offered by industries that helped create the surprise-billing problem.** Surprise bills benefit insurers, providers, hospitals, and other facilities. The various parties that engage in the practice now offer competing solutions to protect their own interests. Congress should scrutinize each of these proposals and determine how they benefit the industries that are proposing them, and how they may lead to new practices that will harm consumers.
4. **Seek ways of empowering consumers instead of “protecting” them.** Congress should look for ways to let consumers wield the same economic power in medical care as they do throughout the rest of the economy. The best way to protect patients is to let them protect themselves through greater transparency, more information, and more freedom and control over their own health care spending. Congress should empower consumers, not protect them.

Endnotes

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3. Chairman's mark, U.S. Senate Committee on Health, Education, Labor and Pensions, June, 2019, <https://www.help.senate.gov/imo/media/doc/Lower%20Health%20Care%20Costs%20Act1.pdf> (accessed June 25, 2019), and Pallone-Walden Surprise Billing Discussion Draft, May 14, 2019, <https://www.documentcloud.org/documents/6002466-Pallone-Walden-Surprise-Billing-Discussion-Draft.html> (accessed June 25, 2019).
4. 42 U.S. Code 300gg-19a(b)(1)(C)(ii), [http://uscode.house.gov/view.xhtml?req=\(title:42%20section:300gg-19a%20edition:prelim\)](http://uscode.house.gov/view.xhtml?req=(title:42%20section:300gg-19a%20edition:prelim)) (accessed June 25, 2019).
5. *Ibid.*
6. Gary Claxton, Matthew Rae, Cynthia Cox, and Larry Leavitt, "An Analysis of Out-of-Network Claims in Large Employer Health Plans," Peterson-Kaiser Health System Tracker, chart: "Outpatient service days that include an emergency room claim are much more likely to include a claim from an out-of-network provider," August 13, 2018, <https://www.healthsystemtracker.org/brief/an-analysis-of-out-of-network-claims-in-large-employer-health-plans/#item-start> (accessed June 25, 2019).
7. *Ibid.*
8. Zack Cooper, Fiona Scott Morton, and Nathan Shekita, "Surprise! Out-of-Network Billing for Emergency Care in the United States," NBER Working Paper 23623, July 2017, revised January 2018, <https://www.nber.org/papers/w23623> (accessed June 25, 2019).
9. *Ibid.*, pp. 19, 20, and 52 (Figure 1).
10. *Ibid.*, pp. 11–29.
11. Senate HELP Committee Chairman's Mark, sections 101–102, and House Energy and Commerce Committee Discussion Draft, May 2019, section 2.
12. Cooper, Scott Morton, and Shekita, "Surprise! Out-of-Network Billing for Emergency Care in the United States," p. 31, and Benedic N. Ippolito and David A. Hyman, "Solving Surprise Medical Billing," AEI Economic Perspectives, March 20, 2019, p. 4, <http://www.aei.org/publication/solving-surprise-medical-billing/> (accessed June 25, 2019).
13. Cooper, Scott Morton, and Shekita, "Surprise! Out-of-Network Billing for Emergency Care in the United States," p. 31.
14. This is particularly true with respect to ED treatment, since payments to providers would be the same, regardless of whether the facility is included in the insurer's network.
15. One observed practice, for example, has been for the ED to increase the use of imaging and the percentage of patients admitted for inpatient care. See, for example, Cooper, Scott Morton, and Shekita, "Surprise! Out-of-Network Billing for Emergency Care in the United States," p. 26.
16. Some states that have adopted a similar approach have set reimbursement for non-network providers at some multiple of the median network rate. Connecticut, for example, sets it at the 80th percentile of network rates, while Maryland established reimbursement at 140 percent of the average. See Cooper, Scott Morton, and Shekita, "Surprise! Out-of-Network Billing for Emergency Care in the United States," p. 31.
17. Senate HELP Committee Chairman's mark, Title I, Subtitle B, section 103.
18. *Ibid.*
19. *Ibid.*
20. In the arbitration process used by Major League Baseball, a player with at least three, but fewer than six, years of major league experience is eligible for arbitration. Unlike players eligible for free agency, the player is only permitted to negotiate with his current team. Under terms of the collective-bargaining agreement, a player and owner who bargain to impasse are bound to present their final offers to an arbitration panel. The panel picks the more reasonable offer of the two. (See Major League Baseball, "Salary Arbitration," <http://m.mlb.com/glossary/transactions/salary-arbitration> (accessed June 25, 2019).) Thus, in "baseball arbitration," the two parties are under contract, and are bound by a collective-bargaining agreement that requires the inclusion of an arbitration clause in the standard contract. This bears little resemblance to the arbitration regime envisioned in the HELP Committee's discussion draft, where there is neither a contract between the parties, nor a collective-bargaining agreement stipulating the circumstances under which the parties must submit to arbitration.
21. Senate HELP Committee discussion draft, May 2019, Title I, Subtitle A, section 103(a).
22. *Ibid.*, Title I, Subtitle A, section 103(b).
23. A more practical problem is that contract matching, per se, would not prohibit balance billing in non-network EDs. It would have to be joined with some other form of government intervention (such as rate setting or binding arbitration) in order to address this problem. Ippolito and Hyman, "Solving Surprise Medical Billing," p. 5.

The Potential Implications of *Texas v. United States*: How Would Repeal of the ACA Change the Likelihood That People With Different Characteristics Would Be Uninsured?

John Holahan, Linda J. Blumberg, and Matthew Buettgens

Timely Analysis of Immediate Health Policy Issues

JUNE 2019

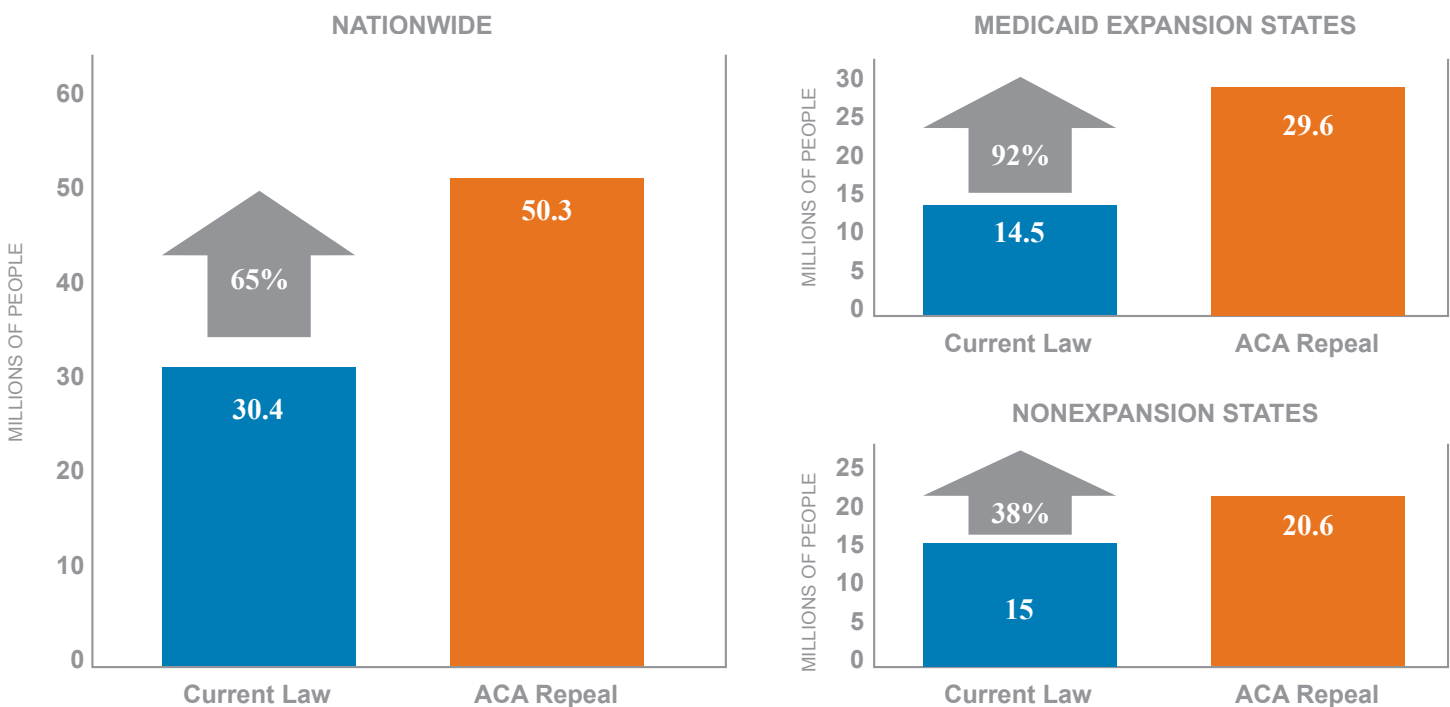
In Brief

A case currently pending before the U.S. Court of Appeals for the Fifth Circuit and supported by the Trump administration argues that, because the 2017 Tax Cuts and Jobs Act eliminated the Affordable Care Act's (ACA's) individual mandate penalties starting with the 2019 plan year, the entire ACA cannot operate or be sustained. Therefore, the plaintiffs in *Texas v. United States* argue that the ACA should be invalidated, or effectively repealed in its entirety. We analyzed the state-by-state coverage and government

funding consequences of a finding for the plaintiffs in this case. This analysis builds upon that work, delineating how such a finding would increase the number and likelihood of being uninsured by different characteristics. Though the number of uninsured people would increase by approximately 20 million, or 65 percent nationally, the increases in uninsurance would be most heavily concentrated among people with the lowest incomes (below 200 percent of the federal poverty level), young adults, families with at least one full-time worker, and residents of the

South and West. These subpopulations of the United States have experienced the largest gains in insurance coverage under the ACA and consequently would be hit the hardest if the law were repealed. In addition, the number of uninsured people would increase by 92 percent across the 34 states that have implemented the ACA's Medicaid expansion, compared with 38 percent in the nonexpansion states, again owing to the fact that coverage increases under the ACA were significantly larger in states that expanded Medicaid eligibility.

The Nonelderly Uninsured Under Current Law and ACA Repeal, 2019



Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

Introduction

In March of this year, we released an analysis that provided state-level estimates of the impact of full repeal of the Affordable Care Act (ACA).¹ These estimates reflect the central insurance coverage and federal spending changes that would occur for the U.S. population under age 65 if *Texas v. United States* is found for the plaintiffs; the case is currently pending before the U.S. Court of Appeals for the Fifth Circuit, and the U.S. Department of Justice is supporting the plaintiffs in the case.² Full repeal of the ACA would eliminate an array of policies that touch almost every aspect of health insurance in the United States. Our estimates include some of the largest effects: the elimination of the ACA's coverage reforms, such as the expansion of Medicaid (a state option that has been implemented in 34 states, including the District of Columbia, and adopted by ballot initiative but not yet implemented in 3 additional states); income-related tax credits; the insurance marketplaces; and the ACA's insurance regulations. Using the Urban Institute's Health Insurance Policy Simulation Model, we show that if the law were invalidated, the number of uninsured people would increase by about 20 million. The uninsurance rate would increase from 11 percent under current law to 18 percent, a 65 percent increase, bringing the nonelderly uninsured total up to 50.3 million people.

Building on this work, we provide additional detail on the characteristics of the uninsured under age 65 if the ACA were repealed. This analysis highlights the people who would be most affected. Unsurprisingly, the people who most benefited from the ACA's coverage expansions would be most likely to become uninsured if the ACA were repealed. Table 1 shows the main results of the analysis. Methodological information relevant to this analysis can be found in the earlier brief.

Characteristics of the Uninsured

Residents of expansion versus nonexpansion states. The first panel of Table 1 shows that repeal would increase the number of uninsured people by 92 percent, or 14.2 million people,

across the 34 states that expanded Medicaid eligibility under the ACA and 38 percent, or 5.7 million people, across nonexpansion states.³ The uninsurance rate across all expansion states would increase from 9 percent of the nonelderly under current law to 17 percent under repeal. In nonexpansion states, the uninsurance rate would increase from 15 percent of the nonelderly to 21 percent. Thus, though uninsurance rates across expansion states would remain well below those of nonexpansion states, as was the case before the ACA, the difference in the uninsurance rates between the two groups of states would shrink.

Family income relative to poverty. The second panel of Table 1 shows changes in the uninsured under repeal by family income relative to poverty.⁴ Uninsurance rates would increase the most for the lower-income groups (Figure 1) since these people were most likely to become eligible for Medicaid or premium tax credit assistance under the ACA. Nationally, the number of uninsured people with incomes under 138 percent of the federal poverty level (FPL) would increase by 71 percent, and the number of uninsured people between 138 and 200 percent of FPL would increase by 72 percent. These translate into an additional 11.1 million uninsured people with incomes below 138 percent of FPL and an additional 3.5 million uninsured people with incomes between 138 and 200 percent of FPL. An additional 3.5 million people between 200 and 400 percent of FPL would be uninsured, as would another 1.8 million people with incomes above 400 percent of FPL. The number of uninsured people in the higher-income group, which has an uninsurance rate of only 3 percent under current law, would increase by 72 percent.

Race and ethnicity. In the third panel of Table 1, we show how repeal would affect the number of uninsured people and the rates of uninsurance among different racial and ethnic groups. The number of uninsured non-Hispanic white and black people would each increase by 79 percent, an additional 9.4 million and 3.2 million uninsured people, respectively. The number of uninsured Hispanic people would increase by 46

percent, an additional 5.4 million people. Their uninsurance rate, the highest of any racial/ethnic group under current law, would increase by 10 percentage points, from 21 percent to 31 percent (Figure 2).

Age. The fourth panel of Table 1 shows changes in the number of uninsured people and uninsurance rates by age. The smallest changes would occur for children, from birth to age 18. Before the ACA, children had the highest rates of insurance coverage because of their higher eligibility for public insurance programs, so the law affected their coverage the least. The number of uninsured children is estimated to increase by just under 1 million under repeal, a 20 percent increase from a relatively low uninsurance level of 6 percent to 7 percent (Figure 3). The largest increase in the number of uninsured, 8.8 million people or 74 percent, would occur for young adults ages 19 to 34. Young adults had the highest uninsurance rate before the ACA and still do under current law; however, they experienced the greatest gains in coverage of any age group because of the law.⁵ The number of uninsured people ages 35 to 54 would increase by 6.8 million people (66 percent), and 3.3 million more people ages 55 to 64 would be uninsured (a 96 percent increase).

Citizenship status. The fifth panel of the table shows changes in the number of uninsured people and uninsurance rates by citizenship status. If the ACA were repealed in full, 17.7 million of the additional 19.9 million uninsured people would be U.S. citizens. Most of the remainder of that increase, 9 percent of the total increase in the uninsured, would be noncitizens in the country legally. Because the ACA did not provide any financial assistance to undocumented people, repeal would affect their coverage minimally. The number of uninsured citizens would increase by 84 percent, and the number of uninsured noncitizens legally present in the US would increase by 133 percent, more than doubling the latter's uninsurance rate.

English language proficiency. The sixth panel of Table 1 shows the English language proficiency of uninsured adults

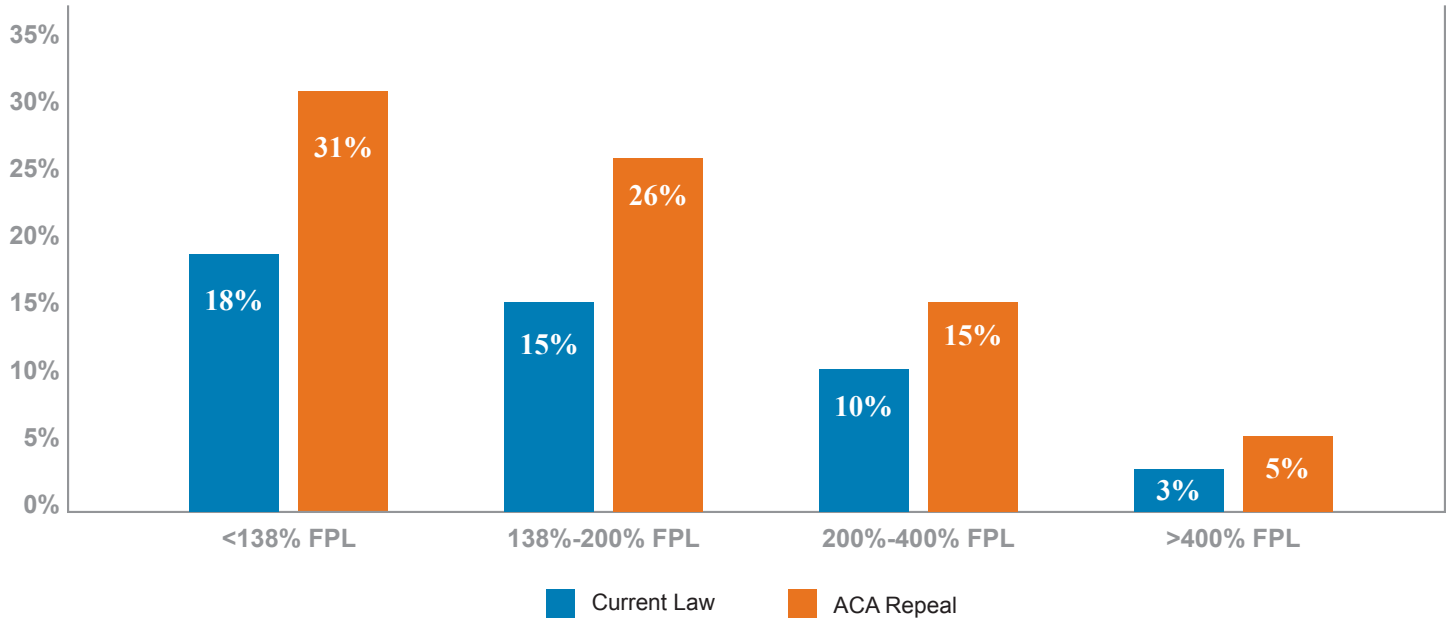
Table 1. Characteristics of the Nonelderly Uninsured and Uninsurance Rates Under the ACA and Full Repeal, 2019 (thousands of people)

Characteristics	Uninsured Under ACA			Uninsured Under ACA Repeal			Difference	Percent Difference	Percentage Point Difference in Uninsurance Rate
	Number of Uninsured	% of Total	Uninsurance Rate	Number of Uninsured	% of Total	Uninsurance Rate			
Medicaid Expansion									
Expansion states	15,452	100%	9%	29,632	100%	17%	14,180	92%	8%
Nonexpansion states	14,924	100%	15%	20,621	100%	21%	5,697	38%	6%
Income									
<138% FPL	15,639	51%	18%	26,693	53%	31%	11,055	71%	13%
138%–200% FPL	4,879	16%	15%	8,402	17%	26%	3,522	72%	11%
200%–400% FPL	7,376	24%	10%	10,899	22%	15%	3,522	48%	5%
> 400% FPL	2,482	8%	3%	4,260	8%	5%	1,777	72%	2%
Race and Ethnicity									
White, non-Hispanic	11,823	39%	8%	21,192	42%	14%	9,369	79%	6%
Hispanic	11,831	39%	21%	17,249	34%	31%	5,418	46%	10%
Black, non-Hispanic	4,003	13%	11%	7,177	14%	20%	3,173	79%	9%
Other	2,720	9%	10%	4,636	9%	18%	1,917	70%	7%
Age									
0–18	4,715	16%	6%	5,667	11%	7%	952	20%	1%
19–34	11,937	39%	17%	20,770	41%	29%	8,833	74%	13%
35–54	10,316	34%	13%	17,138	34%	21%	6,821	66%	8%
55–64	3,408	11%	8%	6,678	13%	16%	3,270	96%	8%
Citizenship Status - Individual									
Citizen	21,087	69%	8%	38,809	77%	15%	17,722	84%	7%
Noncitizen, undocumented	7,998	26%	63%	8,434	17%	67%	437	5%	3%
Noncitizen, documented	1,292	4%	13%	3,010	6%	30%	1,718	133%	17%
English Proficiency - Individual (Ages 19–64)									
<i>Subtotal</i>	25,662		13%	44,586		23%	18,924	74%	10%
Speaks very well or better	18,135	71%	10%	34,209	77%	20%	16,073	89%	9%
Does not speak very well or is less proficient	7,526	29%	36%	10,377	23%	49%	2,851	38%	14%
Education - Individual (Ages 19–64)									
<i>Subtotal</i>	25,662		13%	44,586		23%	18,924	74%	10%
Less than high school	4,726	18%	38%	6,620	15%	53%	1,894	40%	15%
High school	9,940	39%	18%	17,475	39%	32%	7,535	76%	14%
Some college	6,631	26%	12%	12,838	29%	23%	6,207	94%	11%
College graduate	4,365	17%	6%	7,653	17%	11%	3,288	75%	5%
Working Status - Family									
No worker in family	6,885	23%	17%	11,267	22%	28%	4,382	64%	11%
Only part-time worker in family	2,572	8%	15%	4,965	10%	30%	2,393	93%	14%
One full-time worker in family	17,095	56%	12%	27,033	54%	19%	9,939	58%	7%
>1 full-time worker in family	3,824	13%	5%	6,988	14%	10%	3,163	83%	4%
Region									
Northeast	3,378	11%	7%	6,014	12%	13%	2,636	78%	6%
Midwest	5,465	18%	10%	8,952	18%	16%	3,488	64%	6%
South	14,596	48%	14%	22,035	44%	21%	7,439	51%	7%
West	6,938	23%	10%	13,252	26%	20%	6,314	91%	9%
Total	30,377	100%	11%	50,253	100%	18%	19,877	65%	7%

Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

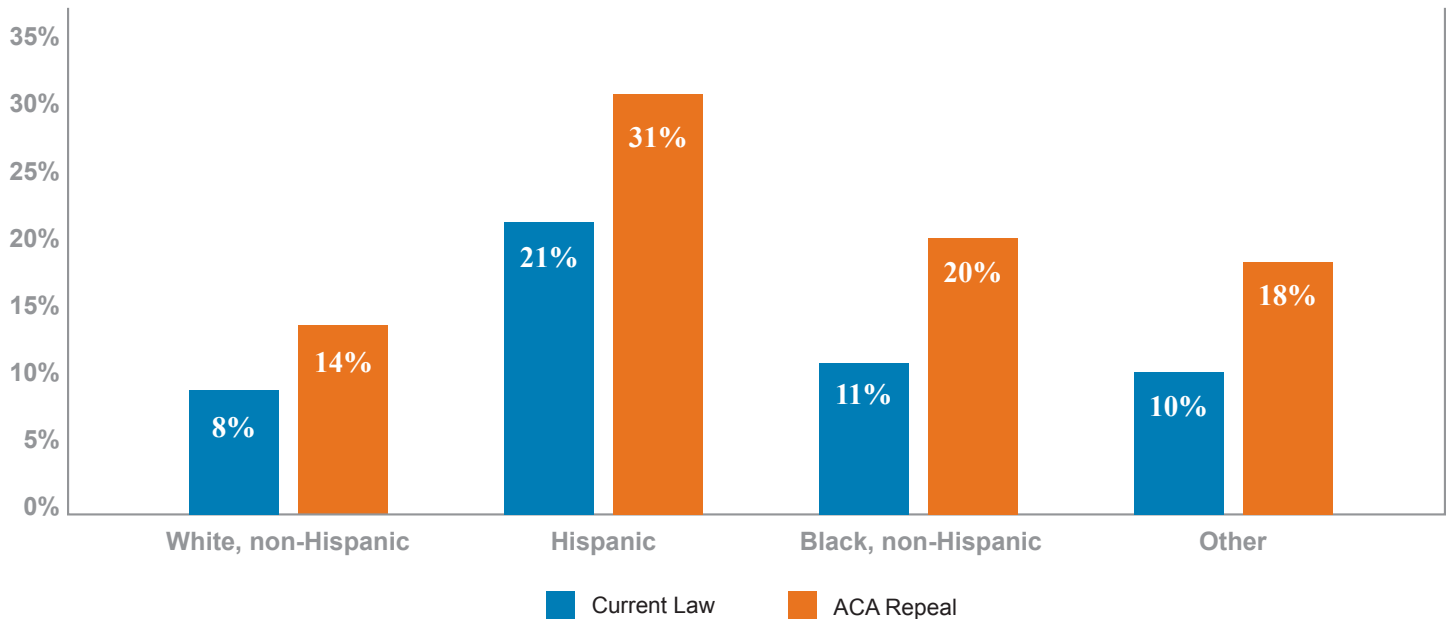
Notes: Estimates assume that all states with pre-ACA Medicaid expansion waivers would be able to reinstate them after repeal. If that is not the case, the number of uninsured in those seven states would be higher under repeal and the changes from current law higher.

Figure 1. Uninsurance Rates of the Nonelderly Under Current Law and ACA Repeal, by Family Income Relative to Poverty



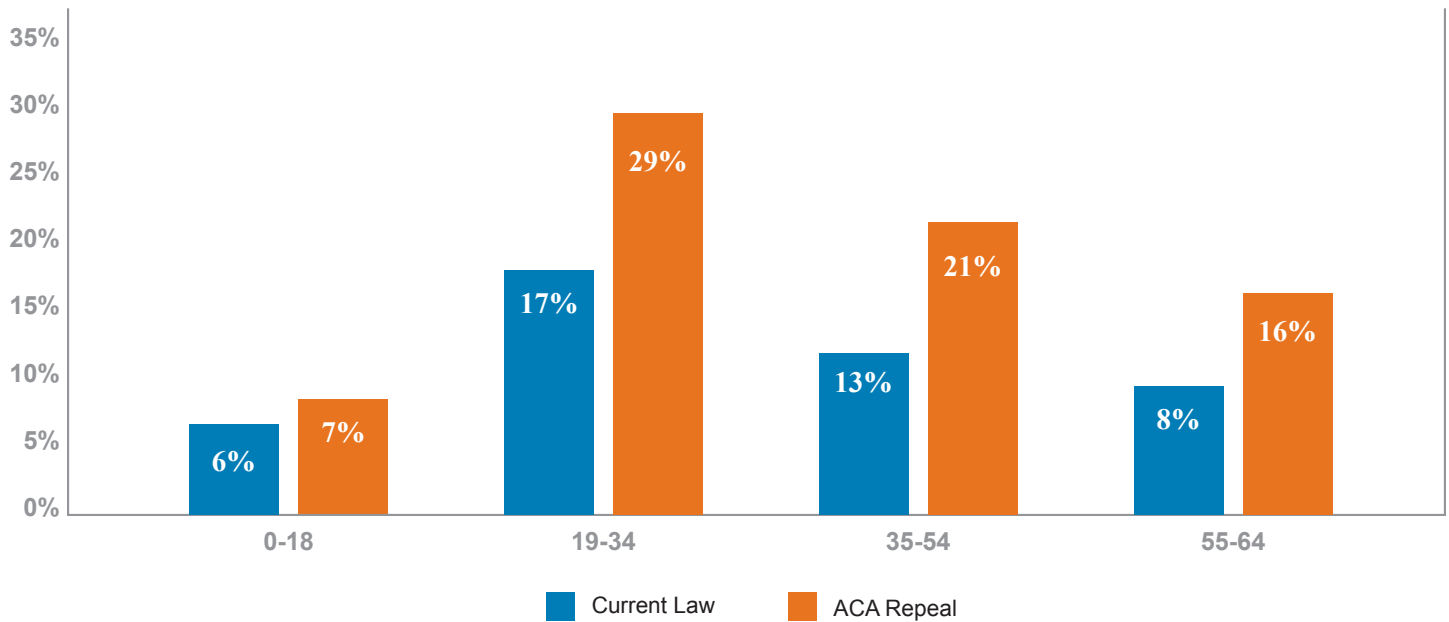
Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

Figure 2. Uninsurance Rates of the Nonelderly Under Current Law and ACA Repeal, by Race and Ethnicity



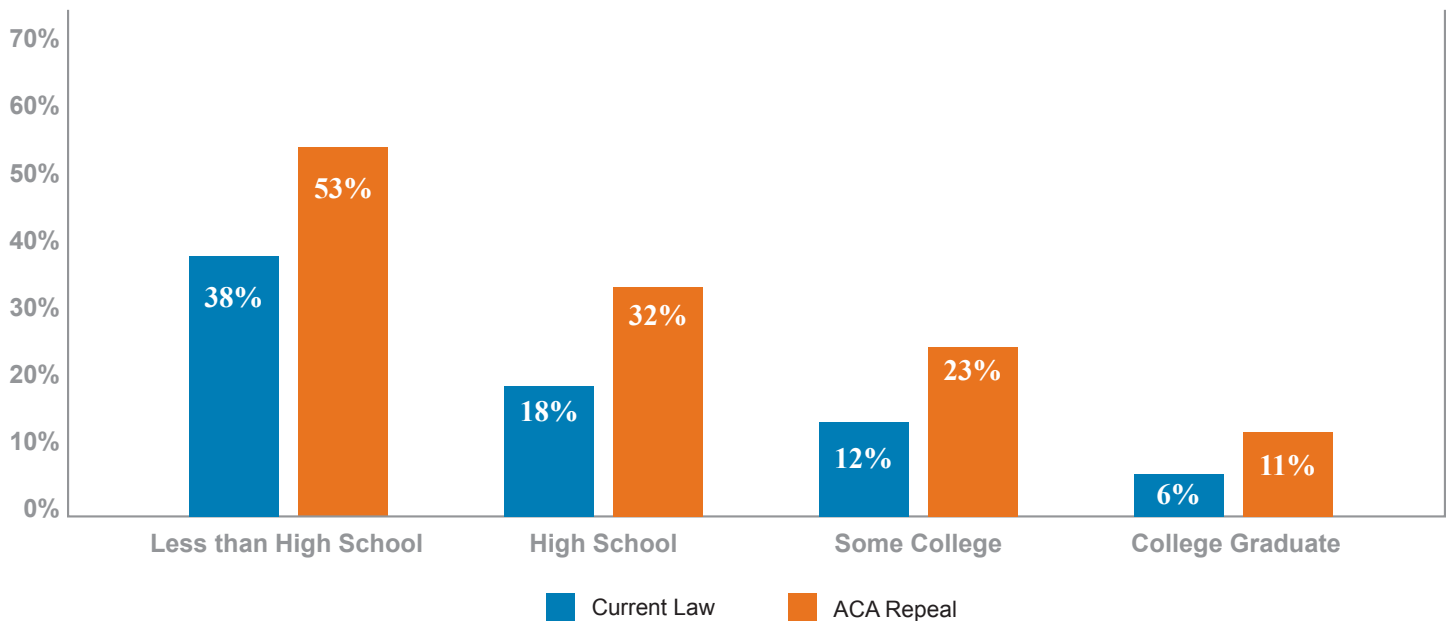
Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

Figure 3. Uninsurance Rates Under Current Law and ACA Repeal, by Age Group



Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

Figure 4. Uninsurance Rates of Nonelderly Adults Under Current Law and ACA Repeal, by Educational Attainment



Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

under current law and repeal. Most of the increase in uninsured adults under repeal, 85 percent or 16.1 million adults, would be among those who speak English very well or better. This is an 89 percent increase in the number of uninsured English-proficient people. The number of uninsured people who do not speak English well would increase by 38 percent, or 2.9 million people.

Educational attainment among adults.

Uninsurance among adults with less than a high school education would increase from 38 percent to 53 percent, or 1.9 million people (a 40 percent increase; Figure 4). The numbers of uninsured people with a high school education and uninsured people with college degrees would increase by approximately 75 percent, or 7.5 million and 3.3 million additional uninsured people, respectively. The relative increase in uninsurance would be greatest for those with some college education but no degree, at 94 percent, or 6.2 million additional uninsured people.

Family work status. Families with one full-time worker would see the largest number of additional uninsured people under repeal (9.9 million). The number of uninsured people within this group would increase by 58 percent; this group also has the greatest number of uninsured people under current law. The largest percent increase in uninsurance (93 percent) would occur among people in families with only part-time work, accounting for another 2.4 million uninsured. Another 3.2 million people in families with more than one full-time worker would be uninsured, and an additional 4.4 million people in families without workers would be uninsured under repeal. Thus, working families would bear 78 percent of the increase in uninsurance.

Geographic region. Uninsurance would increase the most in relative terms in the Northeast and West, by 78 percent and 91 percent, respectively. States in these regions were more likely to expand Medicaid under the ACA; consequently, repeal would lead to larger relative coverage losses (2.6 million and 6.3 million more uninsured people, respectively). However, the

increases in the Midwest and the South would still be sizable in both absolute and relative terms, with 3.5 million more uninsured (a 64 percent increase) in the Midwest and 7.4 million more uninsured (a 51 percent increase) in the South. The largest percentage-point increase in uninsurance would occur in the West, where the uninsured share of the population would grow from 10 percent to 20 percent if the ACA were repealed.

Characteristics of the Uninsured within Medicaid Expansion Versus Nonexpansion States

Table 2 shows numbers of uninsured people and uninsurance rates by income, race and ethnicity, age, and adult education level separately for residents of states that have expanded Medicaid eligibility under the ACA and those that have not. This set of breakouts show that in almost every subgroup, the effects of repeal would be larger in expansion states than in nonexpansion states. Because the expansion state populations experienced greater increases in coverage under the ACA, this is expected. Still, increases in uninsurance would still be substantial in the nonexpansion states, most of which have experienced significant increases in insurance coverage under the ACA because of the availability of financial assistance for modest-income people through the marketplaces and the insurance reforms, which increased access to and affordability of coverage for people with health problems regardless of income. The appendix table shows the effects of repeal on uninsurance in each state plus the District of Columbia.

Family income relative to the federal poverty level. The effects of repeal on the population with incomes below 138 percent of FPL highlight the most dramatic differences between expansion and nonexpansion states. Expansion states provide Medicaid eligibility for all citizens and other legally present residents who have been in the United States for at least five years with incomes up to 138 percent of FPL. Financial assistance through the marketplaces is available to people ineligible for Medicaid or Medicare with incomes between 100 and

400 percent of FPL (in addition to some lower-income immigrants in Medicaid expansion states who are legally present for fewer than five years) and whom do not have offers of employer-based coverage deemed affordable to them. Consequently, ACA financial assistance in nonexpansion states is generally not available for people with incomes below 100 percent of FPL (some will have traditional Medicaid eligibility, but often those state income eligibility thresholds are quite low).⁶ As a result, repeal of the ACA would increase the number of uninsured people with incomes below 138 percent of FPL in expansion states by 124 percent, or 8.7 million people, compared with 28 percent, or 2.4 million people, in nonexpansion states.

Under repeal, the number of uninsured people with incomes between 138 and 200 percent of FPL would increase by 78 percent in expansion states and 65 percent in nonexpansion states, and the number of uninsured people with incomes between 200 and 400 percent of FPL would increase by 55 percent in expansion states and 39 percent in nonexpansion states. These differences between the state groups reflect the fact that expansion states have tended to be more successful in enrolling their residents in ACA subsidized nongroup insurance coverage, even though that federal financial assistance was offered in every state. The uninsurance rates would increase commensurately in each state group among people with incomes above 400 percent of FPL, those ineligible for additional financial assistance under the ACA.

Race and ethnicity. The uninsurance rate for non-Hispanic white residents in expansion states would increase by 112 percent under repeal, compared with a 44 percent increase in uninsurance in nonexpansion states. The uninsurance rate for non-Hispanic black residents would increase by 130 percent in expansion states and 45 percent in nonexpansion states.

Age. Among young adults ages 19 to 34, the number of uninsured people would increase by 109 percent in expansion states, compared with 38 percent in nonexpansion states. People ages 55 to

Table 2. Characteristics of the Nonelderly Uninsured and Uninsurance Rates Under the ACA and Full Repeal, by State Medicaid Expansion Status, 2019 (thousands of people)

Characteristics	Uninsured Under ACA			Uninsured Under ACA Repeal			Difference	Percent Difference	Percentage Point Difference in Uninsurance Rate
	Number of Uninsured	% of Total	Uninsurance Rate	Number of Uninsured	% of Total	Uninsurance Rate			
INCOME									
Expansion States									
<138% FPL	6,979	45%	13%	15,640	53%	30%	8,661	124%	16%
138%–200% FPL	2,688	17%	14%	4,777	16%	24%	2,089	78%	11%
200%–400% FPL	4,209	27%	9%	6,509	22%	14%	2,300	55%	5%
> 400% FPL	1,576	10%	3%	2,706	9%	5%	1,130	72%	2%
Total	15,452	100%	9%	29,632	100%	17%	14,180	92%	8%
Nonexpansion States									
<138% FPL	8,660	58%	26%	11,053	54%	34%	2,394	28%	7%
138%–200% FPL	2,191	15%	18%	3,624	18%	30%	1,433	65%	12%
200%–400% FPL	3,168	21%	12%	4,390	21%	16%	1,222	39%	4%
> 400% FPL	906	6%	4%	1,554	8%	6%	648	71%	3%
Total	14,924	100%	15%	20,621	100%	21%	5,697	38%	6%
RACE AND ETHNICITY									
Expansion States									
White, non-Hispanic	6,158	40%	6%	13,061	44%	13%	6,903	112%	7%
Hispanic	5,949	38%	17%	9,570	32%	27%	3,621	61%	10%
Black, non-Hispanic	1,617	10%	8%	3,713	13%	19%	2,096	130%	11%
Other	1,728	11%	9%	3,288	11%	17%	1,560	90%	8%
Total	15,452	100%	9%	29,632	100%	17%	14,180	92%	8%
Nonexpansion States									
White, non-Hispanic	5,665	38%	10%	8,131	39%	15%	2,466	44%	5%
Hispanic	5,882	39%	28%	7,679	37%	36%	1,797	31%	9%
Black, non-Hispanic	2,386	16%	15%	3,463	17%	21%	1,077	45%	7%
Other	992	7%	16%	1,348	7%	22%	357	36%	6%
Total	14,924	100%	15%	20,621	100%	21%	5,697	38%	6%
AGE									
Expansion States									
0–18	2,202	14%	4%	2,712	9%	5%	510	23%	1%
19–34	6,032	39%	13%	12,598	43%	28%	6,567	109%	14%
35–54	5,378	35%	10%	10,175	34%	19%	4,797	89%	9%
55–64	1,840	12%	7%	4,147	14%	15%	2,306	125%	8%
Total	15,452	100%	9%	29,632	100%	17%	14,180	92%	8%
Nonexpansion States									
0–18	2,513	17%	9%	2,955	14%	10%	443	18%	2%
19–34	5,905	40%	24%	8,172	40%	33%	2,267	38%	9%
35–54	4,938	33%	17%	6,962	34%	24%	2,024	41%	7%
55–64	1,568	11%	11%	2,531	12%	17%	963	61%	7%
Total	14,924	100%	10%	20,621	100%	14%	5,697	38%	4%
EDUCATION - INDIVIDUAL (AGES 19–64)									
Expansion States									
Less than high school	2,464	19%	32%	3,863	14%	50%	1,398	57%	18%
High school	4,943	37%	14%	10,439	39%	30%	5,496	111%	16%
Some college	3,338	25%	9%	7,736	29%	22%	4,398	132%	12%
College graduate	2,504	19%	5%	4,882	18%	10%	2,378	95%	5%
Subtotal	13,250		11%	26,920		21%	13,670	103%	11%
Nonexpansion States									
Less than high school	2,262	18%	47%	2,758	16%	57%	496	22%	10%
High school	4,996	40%	25%	7,036	40%	35%	2,040	41%	10%
Some college	3,292	27%	16%	5,102	29%	25%	1,809	55%	9%
College graduate	1,861	15%	8%	2,771	16%	12%	909	49%	4%
Subtotal	12,412		18%	17,666		26%	5,254	42%	8%

Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

Notes: Estimates assume that all states with pre-ACA Medicaid expansion waivers would be able to reinstate them after repeal. If that is not the case, the number of uninsured in those seven states would be higher under repeal and the changes from current law higher.

64 would also be particularly adversely affected by ACA repeal; in expansion states, the number of uninsured people in this age group would increase by 125 percent, compared with a 61 percent increase in nonexpansion states.

Educational attainment among adults. The number of uninsured adults within each education group would increase more in expansion states than in nonexpansion states. The number of uninsured adults with less than a high school education would increase by 57 percent in expansion states, compared with 22 percent in nonexpansion states. The number of uninsured people with a high school degree would increase 111 percent in expansion states under repeal, compared with a 41 percent increase in nonexpansion states. The number of uninsured people with some college education but no degree would increase by 132 percent in expansion states and 55 percent in nonexpansion states. Among people with college degrees, uninsurance would increase by 95 percent in expansion states, compared with 49 percent in nonexpansion states.

Conclusion

If the plaintiffs in the case currently pending before U.S. Court of Appeals for the Fifth Circuit are ultimately successful, the full ACA will effectively be repealed.

This would have vast consequences that would be felt throughout the U.S. health care system. Many of these have been documented in amicus briefs filed in the case,⁷ and estimating the implications of most of these consequences is beyond the scope of this analysis. Here, we elaborate upon our earlier work to describe the characteristics of uninsured people under current law and the effect of a repeal on uninsurance among people with different characteristics.

If the ACA were invalidated and effectively repealed, the number of uninsured people would increase by approximately 20 million. Because a large percentage of people who were uninsured before the ACA gained coverage through the ACA's Medicaid expansion, the impact of repeal would be much greater in the 34 states that have expanded Medicaid eligibility. An additional 14.2 million people living in expansion states would be uninsured, and 5.7 million more people living in nonexpansion states would be uninsured. Overall, almost 3/4 of the increase in the number of people uninsured under repeal would be people with incomes below 200 percent of FPL. Just about half of the increase in the number of people uninsured would be young adults ages 19 to 34.

The number of uninsured non-Hispanic white and black people would increase the most under repeal, by an additional 79 percent each, accounting for 9.4 million and 3.2 million more uninsured people, respectively. Most people losing coverage would be citizens and those reporting high levels of English proficiency. Half of the increase in uninsured adults would occur among those with a high school education or less. Two-thirds of the additional uninsured would be in families with at least one full-time worker. Finally, about 70 percent of the additional uninsured would live in the South and West regions of the United States, even though these regions are a mix of expansion and nonexpansion states. However, many have large populations, and even among states that did not expand Medicaid, many low-income residents gained coverage through the marketplaces. This analysis demonstrates that the ACA's coverage expansions were successfully targeted to low-income, less-educated, and working populations, meaning repeal would disproportionately affect these same groups.

Appendix Table. The Uninsured Nonelderly Under Current Law and Full ACA Repeal, by State and ACA Medicaid Expansion Status (thousands of people), 2019

State	Current Law		Full Repeal with Renewed Pre-ACA Expansions			
	Number of People	Percent	Number of People	Percent	Difference from Current Law	
					Number of People	Percent
<i>Expansion States</i>	15,452	9%	29,632	17%	14,180	92%
Alaska	75	11%	143	20%	68	91%
Arizona	768	13%	1,064	18%	297	39%
Arkansas	206	8%	505	20%	299	145%
California	3,421	10%	7,210	21%	3,789	111%
Colorado	396	8%	796	17%	400	101%
Connecticut	171	6%	394	13%	223	130%
Delaware	66	8%	94	12%	28	42%
District of Columbia	35	6%	69	12%	34	97%
Hawaii	132	10%	143	11%	11	8%
Illinois	1,297	12%	1,902	17%	605	47%
Indiana	600	11%	1,097	19%	497	83%
Iowa	149	6%	336	13%	187	126%
Kentucky	252	7%	630	17%	379	151%
Louisiana	335	9%	830	22%	494	147%
Maine	51	5%	134	13%	83	165%
Maryland	374	7%	719	14%	345	92%
Massachusetts	137	3%	239	4%	102	74%
Michigan	627	8%	1,347	17%	720	115%
Minnesota	331	7%	596	13%	265	80%
Montana	63	8%	175	21%	112	177%
Nevada	376	14%	658	24%	282	75%
New Hampshire	66	6%	155	14%	89	136%
New Jersey	732	10%	1,327	18%	595	81%
New Mexico	207	11%	434	24%	226	109%
New York	1,488	9%	2,095	13%	607	41%
North Dakota	56	10%	81	14%	25	46%
Ohio	704	7%	1,445	15%	741	105%
Oregon	304	9%	676	20%	372	122%
Pennsylvania	644	6%	1,502	14%	858	133%
Rhode Island	57	7%	124	14%	67	116%
Vermont	32	7%	45	9%	13	40%
Virginia	670	9%	1,312	17%	642	96%
Washington	538	9%	1,102	18%	565	105%
West Virginia	92	6%	254	18%	162	176%
<i>Nonexpansion States</i>	14,924	15%	20,621	21%	5,697	38%
Alabama	504	12%	647	16%	143	28%
Florida	2,327	14%	3,887	24%	1,560	67%
Georgia	1,594	17%	2,055	22%	461	29%
Idaho	202	14%	281	19%	79	39%
Kansas	342	14%	404	16%	62	18%
Mississippi	404	16%	504	20%	100	25%
Missouri	639	13%	808	16%	169	26%
Nebraska	182	11%	234	15%	52	29%
North Carolina	1,168	13%	1,672	19%	503	43%
Oklahoma	617	18%	763	23%	146	24%
South Carolina	536	13%	778	19%	242	45%
South Dakota	101	14%	114	16%	12	12%
Tennessee	738	13%	905	16%	168	23%
Texas	4,678	19%	6,411	26%	1,733	37%
Utah	383	14%	484	17%	102	27%
Wisconsin	436	9%	589	12%	153	35%
Wyoming	74	15%	85	17%	12	16%
Total	30,377	11%	50,253	18%	19,877	65%

Source: The Urban Institute, Health Insurance Policy Simulation Model, 2019.

Notes: Estimates assume that all states with pre-ACA Medicaid expansion waivers would be able to reinstate them after repeal. If that is not the case, the number of uninsured in those seven states would be higher under repeal and the changes from current law higher.

NOTES

- 1 Blumberg LJ, Buettgens M, Holahan J, Pan C. State-by-State Estimates of the Coverage and Funding Consequences of Full Repeal of the ACA. Washington: Urban Institute; 2019. <https://www.urban.org/research/publication/state-state-estimates-coverage-and-funding-consequences-full-repeal-aca>. Accessed May 8, 2019.
- 2 Stanley-Becker I. Trump administration asks court to completely invalidate Obama’s Affordable Care Act. *New York Times*. March 26, 2019. https://www.washingtonpost.com/nation/2019/03/26/trump-administration-asks-court-totally-repeal-obamas-affordable-care-act/?utm_term=.bfad157689b3. Accessed May 8, 2019.
- 3 The states that have expanded Medicaid eligibility under the ACA are Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, and West Virginia. The states that have not expanded eligibility are Florida, Georgia, Idaho, Kansas, Mississippi, Missouri, Nebraska, North Carolina, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Wisconsin, and Wyoming. Three of the latter group (Idaho, Nebraska, and Utah) have passed ballot initiatives to expand Medicaid but have not implemented them at this writing. For estimates of how further Medicaid expansion could affect health coverage, see Buettgens M. The Implications of Medicaid Expansion in the Remaining States: 2018 Update. Washington: Urban Institute; 2019. <https://www.urban.org/research/publication/implications-medicaid-expansion-remaining-states-2018-update>.
- 4 For example, in the 2019 coverage year, the ACA income relative to poverty thresholds are \$12,140 for a one-person household and \$25,100 for a four-person household.
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- 6 Henry J. Kaiser Family Foundation. Where Are States Today? Medicaid and CHIP Eligibility Levels for Children, Pregnant Women, and Adults. San Francisco: Henry J. Kaiser Family Foundation; 2019. <http://files.kff.org/attachment/Fact-Sheet-Where-are-States-Today-Medicaid-and-CHIP-Eligibility-Levels-for-Children-Pregnant-Women-and-Adults>. Accessed May 8, 2019.
- 7 Bipartisan Scholars, Economists, Public Health Experts, Hospital and Provider Associations, Patient Groups, Counties, Cities and More Support Coalition of 21 Attorneys General in Fight to Protect the Affordable Care Act. State of California Office of Attorney General Xavier Becerra website. <https://oag.ca.gov/news/press-releases/bipartisan-scholars-economists-public-health-experts-hospital-and-provider>. Published April 2, 2019. Accessed May 8, 2019.

The views expressed are those of the authors and should not be attributed to the Robert Wood Johnson Foundation or the Urban Institute, its trustees, or its funders.

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John Holahan and Linda J. Blumberg are Institute Fellows and Matthew Buettgens is a Senior Fellow in the Urban Institute’s Health Policy Center. The authors wish to thank Clare Pan for research assistance. In addition to Matthew Buettgens and Clare Pan, Michael Simpson and Robin Wang are members of the HIPSM development team; thus, their work contributes to all HIPSM-based analyses.

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June 18, 2019

Administration's Poverty Line Proposal Would Cut Health, Food Assistance for Millions Over Time

By Aviva Aron-Dine, Matt Broaddus, Zoë Neuberger, and Arloc Sherman

The Trump Administration is considering a change to the federal poverty line that would ultimately cause millions of people to lose eligibility for, or receive less help from, health, food assistance, and other programs that help them meet basic needs. (See Figure 1.) The Office of Management and Budget (OMB) has requested comments on updating the Census Bureau's poverty thresholds using an alternative, lower measure of inflation than the traditional Consumer Price Index (CPI). That change would lower the poverty line by growing amounts each year relative to the current approach. The Administration could move forward with its proposal any time after OMB's June 21 deadline for comments.

While the OMB notice does not discuss how the proposal would affect low-income families, the Census poverty thresholds are the basis for Department of Health and Human Services poverty guidelines, which determine who can get help from Medicaid, the Supplemental Nutrition Assistance Program (SNAP, formerly food stamps), and many other federal programs. The proposed change would lower the income-eligibility cutoffs for all of these programs, cutting or eliminating assistance for some individuals and families. This analysis focuses on the impact on health coverage and food assistance programs, but the change would also affect eligibility for more than a dozen other programs including Head Start, the Low Income Home Energy Assistance Program, and legal aid.¹

Proposal Would Cut Medicaid, Medicare, Premium Tax Credits

By the tenth year of indexing the poverty line using the "chained CPI" instead of the traditional Consumer Price Index, millions of people would lose eligibility for, or receive less help from, health

¹ "What programs use the poverty guidelines?" Department of Health and Human Services, <https://www.hhs.gov/answers/hhs-administrative/what-programs-use-the-poverty-guidelines/index.html>. In addition to its impact on low-income families, the proposed change would make poverty measurement less accurate; see Arloc Sherman and Paul N. Van de Water, "Reducing Cost-of-Living Adjustment Would Make Poverty Line a Less Accurate Measure of Basic Needs," Center on Budget and Policy Priorities, June 11, 2019, <https://www.cbpp.org/research/poverty-and-inequality/reducing-cost-of-living-adjustment-would-make-poverty-line-a-less>.

coverage programs. These widespread cuts would raise uninsured rates and worsen access to care, financial security, and health.² For example:

- More than 250,000 low-income seniors and people with disabilities would lose or receive less help from Medicare’s Part D Low-Income Subsidy Program, meaning they would pay higher premiums for drug coverage and/or pay more out of pocket for prescription drugs.
- More than 150,000 low-income seniors and people with disabilities would lose eligibility for a program that covers their Medicare Part B premium, meaning they would have to pay premiums of over \$1,500 per year to maintain Medicare coverage for physician and other outpatient care.
- More than 300,000 children would lose comprehensive coverage through Medicaid or the Children’s Health Insurance Program (CHIP), as would some pregnant women.
- More than 250,000 adults would lose coverage through the Affordable Care Act’s (ACA) Medicaid expansion, and some very low-income parents covered through Medicaid in states that haven’t adopted the expansion would lose coverage as well.
- Millions of ACA marketplace consumers would receive lower premium tax credits, meaning they would pay higher premiums, and more than 150,000 would get less help with cost sharing, meaning their deductibles would increase.

Proposal Would Cut Food Assistance, Primarily to Working Families

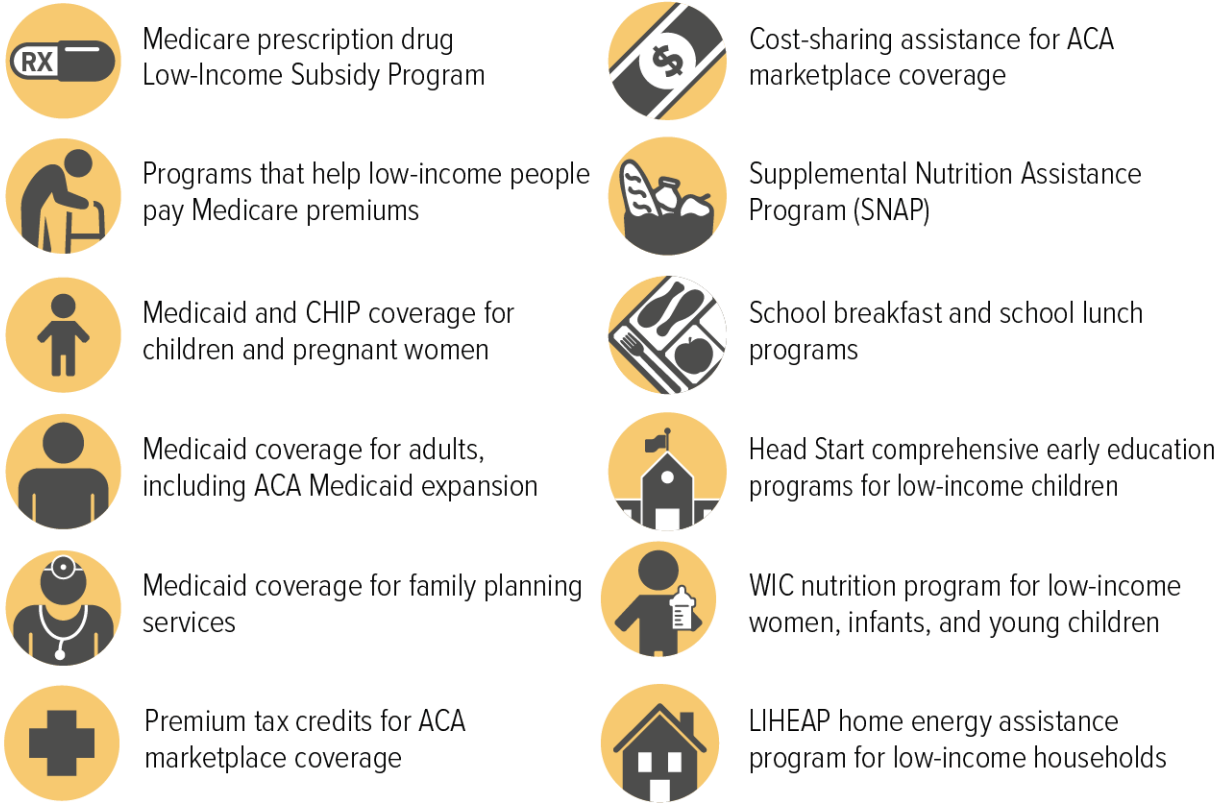
Adopting a slower-rising poverty line would also have a large and growing impact on food assistance for needy households. By the tenth year of indexing the poverty line using the chained CPI instead of the traditional Consumer Price Index, hundreds of thousands of people would lose eligibility for food assistance programs. For example:

- Nearly 200,000 people, mostly in working households, would lose SNAP benefits altogether.
- More than 100,000 school-age children would lose eligibility for free or reduced-price school meals altogether. In addition, more than 100,000 children would lose eligibility for free meals, though they could pay the reduced price.
- About 40,000 infants and young children would lose benefits through the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), which provides healthy foods, nutrition counseling, breastfeeding support, and referrals to families.

² Aviva Aron-Dine and Matt Broaddus, “Poverty Line Proposal Would Cut Medicaid, Medicare, and Premium Tax Credits, Causing Millions to Lose or See Reduced Benefits Over Time,” Center on Budget and Policy Priorities, May 22, 2019, <https://www.cbpp.org/research/poverty-and-inequality/poverty-line-proposal-would-cut-medicare-and-premium-tax>. As the paper explains, most of those losing coverage through Medicaid and CHIP would likely qualify for subsidized coverage through the ACA marketplaces, but a significant number would not, and even among those who would, the proposal would likely increase uninsured rates and worsen access to care, since marketplace plans come with higher premiums and cost sharing.

FIGURE 1

Trump Proposal to Lower Poverty Line Would Cut Eligibility or Benefits for Many Health, Nutrition, Other Basic Assistance Programs



ACA = Affordable Care Act. CHIP = Children's Health Insurance Program

Appendix: Methodology for Estimates

Our estimates reflect the impact of updating the Census poverty thresholds using the chained CPI rather than the Consumer Price Index for all urban consumers (CPI-U) for ten years, starting with the 2018 thresholds (which will be finalized in 2019), based on the Congressional Budget Office's (CBO) economic projections.³ We adjust for changes in program enrollment, again using CBO projections. However, all of our estimates are based on the current income distribution of program enrollees relative to the poverty line, without taking into account how the income distribution may shift over the coming decade. In some cases, this limitation likely leads us to modestly overstate the impact of eligibility changes, but it should not change the qualitative conclusions.

Medicare enrollees. Our general approach is to use 2017 American Community Survey (ACS) data to estimate the share of Medicare enrollees with incomes between the current eligibility thresholds for various assistance programs and the lower thresholds that would result from updating the thresholds with the chained CPI for ten years. We apply these percentages to administrative tallies of the number of people enrolled in the relevant program and scale those estimates by CBO's projection of Part D Low-Income Subsidy (LIS) enrollment growth through 2029.

Specifically, to estimate the number of people losing eligibility for the Qualifying Individual (QI) program (which pays Medicare Part B premiums), we estimate the share of Medicare enrollees with incomes between 120 and 135 percent of the poverty line who fall into the income range that would lose eligibility. We apply that percentage to QI enrollment in 2013 (the most recent available) and scale based on projected LIS enrollment growth.

People losing eligibility for the QI program would also lose eligibility for the full LIS benefit. To estimate the number of additional people losing full LIS eligibility, we first estimate the number of people receiving full LIS benefits who are not enrolled in Medicaid. Based on Centers for Medicare & Medicaid Services (CMS) data on the number of dual-eligible beneficiaries versus the number of LIS full-benefit enrollees, more than 1 million people fell into this group in 2018. We estimate the share of Medicare enrollees with incomes below 135 percent of the poverty line who fall into the income range that would lose eligibility for the full LIS benefit, and apply that percentage to the number of full LIS beneficiaries not enrolled in Medicaid, and scale based on projected LIS enrollment growth.

Finally, to estimate the number of people losing eligibility for the partial LIS benefit, we estimate the share of Medicare enrollees with incomes between 135 and 150 percent of the poverty line who fall into the income range that would lose eligibility. We apply that percentage to 2018 partial LIS enrollment and scale based on projected LIS enrollment growth.

Medicaid and CHIP enrollees. To estimate the share of Medicaid expansion enrollees and child enrollees in Medicaid and CHIP who would lose coverage, we use 2017 ACS data to determine the share of Medicaid adult expansion enrollees and Medicaid and CHIP child enrollees with income between the current eligibility thresholds for those programs and the lower eligibility thresholds if the poverty line were to rise by chained CPI growth for ten years. For children, we account for state-

³ In Medicaid, including the Medicaid Savings Programs and the Medicare Low-Income Subsidy Program, the programmatic impact would be felt in 2029. For marketplace premium tax credits and cost-sharing assistance, the programmatic impact would be felt in 2030.

level differences in Medicaid/CHIP eligibility thresholds. We then apply these percentages to CBO projections of Medicaid expansion enrollment and Medicaid and CHIP child enrollment in 2029.

Marketplace enrollees. To estimate the number of people losing eligibility for cost-sharing assistance or premium tax credits, or receiving reduced cost-sharing assistance, we use 2019 CMS plan selections data, scaled (adjusted downward) based on CBO’s projections for the number of subsidized marketplace enrollees in 2029.

Specifically, we use CMS data on the number of marketplace plan selections by people in different income groups (e.g., 100-150 percent or 150-200 percent of the poverty line) to estimate the number of people with income between the current eligibility thresholds for various forms of assistance and the lower eligibility thresholds that would result from the proposed change after ten years.⁴ For example, since the change would lower the income cutoff for cost-sharing assistance from 250 to 245 percent of the current poverty line, we estimate that the number of people in the income range losing eligibility would be one-twentieth of the total number of people with incomes between 200 and 300 percent of the poverty line.⁵ We also adjust these estimates for the share of consumers in each income group purchasing “silver” tier plans, since only those purchasing silver plans are eligible for cost-sharing assistance.

To estimate the number of consumers who would see immediate reductions in premium tax credits, we use CMS data on 2018 effectuated enrollment. Starting with the 8.9 million consumers receiving premium tax credits, we subtract the share of consumers who already have zero net premiums (and therefore might not be affected by a cut to their premium tax credits) and the share with incomes between 300 and 400 percent of the poverty line (since tax credits would not change for people in this income range).⁶

Supplemental Nutrition Assistance Program. We use fiscal year 2017 SNAP Quality Control data to estimate the share of SNAP households with incomes between the current gross income limit and the lower limit that would result from updating the threshold with the chained CPI for ten years. We apply these percentages to CBO’s projections for SNAP enrollment in 2029. In the states that applied the federal gross income limit in 2017, the proposed rule would lower the gross and net income limits by 2 percent. This would eliminate eligibility among households with gross income between approximately 127 and 130 percent of the poverty line. In the remaining states that implemented broad-based categorical eligibility and set the gross income limit above 130 percent of poverty (but below 200 percent), the proposed rule would reduce the gross income limit by 2

⁴ These data are available from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Marketplace-Products/2019_Open_Enrollment.html.

⁵ Since CMS does not provide data on the number of people with incomes just above 400 percent of the poverty line, we are not able to apply this same approach to estimate the number of people losing eligibility for premium tax credits. But based on the number of plan selections by people with incomes between 300 and 400 percent of the poverty line and the dropoff in the number of consumers at higher income levels across the income distribution, it would be in the tens of thousands.

⁶ In the proposed Notice of Benefit and Payment Parameters for 2020, CMS reported that 17 percent of marketplace consumers have zero net premiums. We estimate the share with incomes between 300 and 400 percent of the poverty line based on the 2019 plan selections data.

percent. For example, for a state with a gross income limit of 200 percent of poverty, the proposal would lower it to 196 percent.

School meals. We generally use Census data to calculate the percentage of children receiving free or reduced-price school meals with income between the current eligibility limit and the limit that would apply if the poverty line were adjusted based on chained CPI growth. Because survey data tend to understate actual participation, we apply those percentages to a separate estimate, based on administrative data, of the total number of children who are approved (“certified”) for free or reduced-price school meals based on family income.

Specifically, we analyze Current Population Surveys (CPS) for March 2014 through March 2018 (the latest available years), averaging together five years of data to increase sample size and improve reliability. Using the survey question on the number of children in each household who received free or reduced-price lunches in the previous year, we find that 1.3 percent of such children have annual family income between 183 percent and 185 percent of the official poverty line (that is, just below the limit for reduced-price meals) and another 1.2 percent are between 128 percent and 130 percent of the poverty line (that is, just below the limit for free meals).

Using administrative data, we estimate that 10.9 million children were certified for free or reduced-price school meals based on household income in October 2016, which likely underestimates the actual number. In October 2018, 28.8 million children were certified to receive free or reduced-price meals, according to unpublished Department of Agriculture (USDA) administrative data. We removed two groups of children from that total to estimate the number of children certified based on household income:

- Some 8.2 million children were directly certified for free school meals because they participate in SNAP, according to USDA figures.⁷ Their eligibility for free school meals generally would not be affected by the proposed change to the poverty line.
- Another 9.7 million children attended schools during the 2016-2017 school year where all students received free meals under the program’s Community Eligibility Provision, according to an analysis by the Food Research and Action Center.⁸ While only a portion of these children are counted among those certified for free meals, existing data do not allow for a precise estimate. Thus, we removed all of them from the total number of children certified for free meals, which would tend to understate the number of children affected by the proposed change to the poverty line.

Subtracting 8.2 million directly certified children and 9.7 million children attending community eligibility schools from the total of 28.8 million children certified for free or reduced-price meals leaves 10.9 million children certified based on household income. To estimate the number of children who would lose eligibility for reduced-price meals, we multiply 1.3 percent by 10.9 million and round down to 100,000. To estimate the number losing free meals and having to pay the reduced price, we multiply 1.2 percent by 10.9 million and round down to 100,000.

⁷ See Table 2 in “Direct Certification in the National School Lunch Program,” USDA Food and Nutrition Service, October 2018, <https://fns-prod.azureedge.net/sites/default/files/resource-files/NSLPDirectCertification2016.pdf>.

⁸ See chart on p. 9 of “Community Eligibility: The Key to Hunger-Free Schools, School Year 2018-2019,” Food Research & Action Center, May 2019, <http://frac.org/wp-content/uploads/community-eligibility-key-to-hunger-free-schools-sy-2018-2019.pdf>.

The estimates are conservative due to data limitations. As explained above, our estimate that 10.9 million children are certified for free or reduced-price school meals based on household income is too low, so our calculations based on it underestimate the number of children who would be affected by the proposal. In addition, while our estimate omits children who qualify for school meals because their household receives SNAP or attends a community eligibility school, the proposed poverty line adjustment would almost certainly cause some of these children to lose eligibility for free or reduced-price school meals through these forms of eligibility, as well.

WIC. We use 2018 CPS data to determine, among infants and children under age 5 in households that receive WIC benefits and are under 185 percent of the poverty line, the share with income between 185 percent of poverty line (WIC's eligibility threshold) and the lower threshold if the poverty line were to rise by chained CPI growth for ten years. (We use CPS data because this survey, unlike the ACS, asks recipients whether they are enrolled in WIC.) We then apply this percentage to USDA's most recent WIC enrollment data among infants and children and inflate that figure by Census Bureau projections of the birth rate between 2020 and 2030.

In roughly half of the states, infants and children under age 5 who are enrolled in Medicaid may be adjunctively eligible for and enroll in WIC at higher income levels than 185 percent of the poverty line. The CPS sample size, though, is not adequate to allow us to account for these state-level eligibility differences. Thus, we do not account for adjunctive eligibility in our analysis, but instead assume that 185 percent of poverty is the eligibility threshold in every state for the purposes of determining the impact of the proposed poverty line change. Even in the states with Medicaid limits above 185 percent of poverty, some adjunctively eligible families would lose eligibility when they lose Medicaid eligibility, but because participation rates are lower at higher income levels, ignoring adjunctive eligibility likely leads us to slightly overstate the number losing WIC eligibility in those states. But the overstatement is likely quite small; USDA's WIC program data show that only about 2 percent of infants and children in WIC report incomes above 185 percent of poverty.

It is worth noting that because we look at only infants and children receiving WIC benefits, not women, in this way we underestimate the impact on WIC enrollment of the proposed poverty line change.

A Targeted Affordability Improvement Proposal: The Potential Effects of Two Nongroup Insurance Reforms Designed to Increase Affordability and Reduce Costs

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Timely Analysis of Immediate Health Policy Issues

JUNE 2019

In Brief

While the public discussion over more comprehensive reforms to the health insurance system continues in the context of the 2020 presidential election campaigns, this brief presents an analysis of much more limited reforms to the Affordable Care Act. Taken together, the two policies analyzed here would lower federal health spending while improving insurance and medical care affordability for people faced with the full cost of nongroup insurance coverage. The first policy would either introduce a public insurance option offering ACA-compliant coverage in the nongroup market or cap private nongroup insurers' provider payment rates at levels based on those used in the Medicare program. The second policy would extend the ACA's premium tax credits to eligible people with incomes above 400 percent of the federal poverty level; today, no one with income above this level is eligible for those credits.

Using the Urban Institute's Health Insurance Policy Simulation Model, we estimate that the combined policies would lower federal health spending on Medicaid acute care for the nonelderly and marketplace premium tax credits by 2.9 percent in 2020 and would increase the number of people with comprehensive insurance coverage by about 1.2 million. In addition, higher-income people (400 percent of the federal poverty level and above) buying coverage in the nongroup insurance market would save an average of 29

percent (\$200) on their monthly premiums and out-of-pocket medical costs.

The desire for additional health insurance reform is frequently driven by the public's desire for greater affordability, but legislative action is frequently thwarted over concerns with the associated increased federal costs, substantial disruption to existing markets, and/or excessive impacts on health care providers. Though not a solution to all gaps in today's health insurance system, this analysis provides evidence that incremental reforms are available that could be targeted to improve affordability for some consumers without increasing federal costs or triggering overly large changes for markets or providers.

Introduction

Debate over the future of the health insurance system continues. A case before the U.S. Court of Appeals for the Fifth Circuit has the potential to invalidate the entire Affordable Care Act (ACA), and the U.S. Department of Justice and the president support that invalidation. Meanwhile, congressional democrats have introduced an array of legislation, including single-payer (or Medicare for All) bills and multiple bills intended to make an array of improvements to the reforms introduced by the ACA, such as enhancing marketplace premium tax credits and/or introducing a public option in some insurance markets. Aside from the divisiveness of the current political climate, the additional federal costs associated with large increases

in subsidies to decrease households' health insurance premiums and out-of-pocket costs are a significant barrier to even incremental improvements to the current system. Therefore, we provide estimates of the implications of two reforms frequently discussed as components of larger policy packages that, taken together, would address ACA marketplace affordability and trim federal spending without excessive market disruption. This limited step would not address all the gaps in the current system, but it would have a significant effect within particular populations and would not require new revenue. The two reforms are

1. capping the provider payment rates both in and out of network for insurance coverage sold in the ACA-compliant nongroup market, or, alternatively, introducing a public option into the nongroup market, assuming both approaches include prescription drug savings relative to commercial rates under current law; and
2. extending the marketplace premium tax credit to people and families with incomes above 400 percent of the federal poverty level (FPL).

Markets with little or no insurer and/or provider competition are frequently associated with high private insurance premiums.^{1,2} Without significant competition, insurers have little incentive to negotiate with providers for lower reimbursement rates. In areas with little

or no provider competition, insurers are unlikely to have the leverage to be tough negotiators with “must-have” providers. A public plan option would give consumers a lower-cost, government-structured insurance plan, with lower premiums resulting from lower regulated provider payment rates, most likely based on those used by the traditional Medicare plan. Private insurers could then compete with the public plan in the nongroup market, having increased negotiating leverage with providers to bring down their own rates. Capping provider payment rates for all private insurers participating in the nongroup market at the same level would lower the claims costs, and thus premiums, for many of the market’s enrollees.

A public plan or capped provider payment rates would therefore lower the full premiums for private nongroup health insurance on average, with the largest premium decreases occurring in geographic areas with the least competitive nongroup insurance and provider markets and little savings occurring in highly competitive markets. The savings would most benefit people paying the full premium for their coverage (those ineligible for premium tax credits and those for whom the credit is effectively zero because the premium they face falls below the percent of income by which their potential tax credit is determined). In addition, the premium decreases would lower the cost of federal premium tax credits provided to enrollees in higher-cost areas, reducing the government cost of providing financial assistance for purchasing coverage. We also assume that, along with the lower provider payment rates, the federal government would require prescription drug manufacturers to provide rebates in this market that would be halfway between those provided to Medicaid and Medicare.

The second policy, extending marketplace premium tax credits to those with incomes above the current cap of 400 percent of FPL, would provide new financial assistance to middle-income people purchasing private

insurance coverage not sponsored by an employer. The policy would provide significant assistance for some people, particularly older adults who face higher premiums because of age rating and still have modest incomes and those living in areas where premiums are particularly high due to lack of market competition. Though the policy does not have an explicit maximum income, as incomes increase, the subsidies would decrease, ultimately to zero, as premiums fell below 9.86 percent of income (the highest premium tax credit percent-of-income cap under current law).

We simulate the coverage and cost implications of each of these policies separately and combined using the Urban Institute’s Health Insurance Policy Simulation Model (HIPSM). We chose these two policies to provide an incremental reform option that would improve affordability for a segment of the population, but when combined, would not require increased government revenue to fund it.

HIPSM has been used extensively to estimate the effects of the ACA, modifications to it, and its potential repeal. All simulations and results presented here reflect policy effects in 2020. Our main findings include the following.

- Capping provider payment rates for ACA-compliant nongroup insurers or introducing a public plan marketplace option alone would
 - » decrease federal spending by \$19.4 billion in 2020, an almost 5 percent decrease in current-law spending on Medicaid/the Children’s Health Insurance Program (CHIP) acute care for the nonelderly and marketplace subsidies, with the largest percentage decreases in states that have not expanded Medicaid, have high marketplace premiums, and lack significant insurer participation in their ACA marketplaces;
 - » decrease aggregate household spending on premiums and out-

of-pocket costs by \$10.9 billion (nearly 2 percent);

- » lower the average per enrollee spending on premiums and out-of-pocket costs by those enrolled in ACA-compliant nongroup coverage without federal tax credits by 22.0 percent, or about \$150 per month, with the largest average premium decreases occurring in states with high premiums because of limited or no insurance market competition; and
 - » increase the number of people with comprehensive insurance coverage by 325,000.
- Extending the highest premium tax credit percent-of-income cap to those with incomes above 400 percent of FPL alone would
 - » increase federal government spending by \$8.2 billion in 2020 (an additional 2 percent compared with current-law spending on Medicaid/CHIP acute care for the nonelderly and marketplace subsidies), with the largest percentage increases occurring in states that have not expanded Medicaid, have high marketplace premiums, have higher shares of nongroup market enrollment among its population with incomes above 400 percent of FPL, and have significant numbers of higher-income uninsured people;
 - » lower household spending by \$1.7 billion in aggregate (less than 1 percent);
 - » lower average premium spending by \$130 per month, or 18.7 percent per enrollee, for those with incomes over 400 percent of FPL buying nongroup coverage; states with the highest average premium savings within this income group are those where marketplace premiums are higher and larger shares of this income group have incomes closer to 400 percent of FPL; and
 - » increase the number of people

with comprehensive insurance coverage by 912,000.

- Combining both of these policies would
 - » reduce federal government spending by \$12.0 billion in 2020;
 - » decrease household spending by \$9.2 billion in aggregate;
 - » lower average premium spending by \$200 per month, or 29.0 percent, for those with incomes over 400 percent of FPL buying nongroup coverage; and
 - » increase the number of people with comprehensive insurance coverage by 1.2 million.

The public's desire for greater health insurance affordability tends to meet political barriers because of the additional federal costs associated with such improvements, in addition to concerns over excessive disruption of existing markets and/or large effects on health care providers. This targeted approach takes into consideration the countervailing pressures that have historically blocked progress in addressing market dysfunction, improving affordability for a segment of the population currently ineligible for marketplace financial assistance, limiting provider effects to the nongroup insurance market, and reducing government spending.

Methodology

HIPSM is a detailed microsimulation model of the health care system designed to estimate the cost and coverage effects of proposed health care policy options. HIPSM is based on two years of the American Community Survey, which provides national- and state-representative samples. The population is aged to future years using projections from the Urban Institute's Mapping America's Futures program. HIPSM is designed to incorporate timely, real-world data when they are available.

We regularly update the model to reflect published Medicaid and marketplace enrollment and costs in each state. The enrollment experience in each state under current law affects how the model simulates policy alternatives. The current version of HIPSM is calibrated to state-specific targets for marketplace enrollment following the 2019 open enrollment period, 2019 marketplace premiums, and late 2018 Medicaid enrollment from the Centers for Medicare & Medicaid Services monthly enrollment snapshots. As of this publication, no 2019 data were available on off-marketplace or non-ACA-compliant nongroup coverage. Here we describe approaches to simulating current law and the two policy options described above.

Simulation of insurance coverage and health care spending under current law, 2020. We begin by estimating health insurance coverage and health care spending by governments, employers, and households under current law. Our current-law ACA simulations are based on enrollment in the marketplaces in each state following the 2019 open enrollment period. We capture the collective effect of policy changes implemented by the Trump administration by benchmarking the current-law simulation to 2019 marketplace enrollment, the most recent Medicaid enrollment data, and nongroup market premium changes between 2018 and 2019. We then age these benchmarks to our analysis year, 2020, accounting for estimated premium growth, changing demographics, and anticipated shifts in the income distribution. Because the individual mandate penalties are set to \$0 under current law in 2019, our 2020 current-law estimates must simulate elimination of these penalties, except in Massachusetts, New Jersey, and the District of Columbia, which have passed legislation enacting their own penalties. In addition, effects of the Trump administration's finalized regulations allowing the expansion of sales of short-term, limited-duration (STLD) policies will not be fully realized until at least 2020. States regulate these policies

differently, so we must explicitly estimate the effects of eliminating the individual mandate penalties and expanded sales of STLD policies by state and incorporate these estimates into our simulation of current law in 2020. Our 2020 current-law simulation also assumes that all states would instruct their insurers to add the costs associated with cost-sharing subsidies into their silver-level premiums, consistent with 2019 rules.

Simulation of policy options. The first policy option would cap payment rates or, equivalently, add a public option with the same rates, as well as cut payments for prescription drugs. We estimated what payment rates would be in each rating region if provision of health care in the region were highly competitive, defined here as having five or more active insurers in the nongroup market and low market concentration for hospitals. We use this proxy for the most efficient provider payment rates achievable under reform because there is insufficient claims data from nongroup insurers nationwide to compute average claims relative to Medicare rates, for example. Our previous research has shown that marketplace nongroup premiums decrease dramatically as the number of competing insurers increases.² We estimate the potential savings achievable under a public option or capped payment rates using the premium gradient produced through that work, controlling for other market characteristics. The policy change would not decrease premiums in highly competitive areas but would drop by more than one-third in the least competitive markets. In addition to those reductions, all regions would see costs cut by an additional 6.9 percent to reflect the reform's controls on the prices paid for prescription drugs in the ACA-compliant nongroup markets. This 6.9 percent premium savings estimate (1) assumes that ACA-compliant nongroup purchasers would receive additional discounts on prescription drug prices that are roughly halfway between the Medicaid and Medicare discounts provided under current law³ and (2)

accounts for the share of private health insurance spending on the nonelderly devoted to prescription drugs, according to the 2016 Medical Expenditure Panel Survey.⁴

The second policy option would extend premium tax credits above the current cap of 400 percent of FPL. People with household incomes above this level who would otherwise be eligible for premium tax credits, if not for their income, would be made eligible under the reform. Tax credits would still not be available to those ineligible for other reasons, such as not being legally present in the country, being eligible for other public coverage like Medicare or Medicaid, and having an affordable offer of insurance through an employer. Currently, people with incomes between 300 and 400 percent of FPL have their contribution for the second-lowest silver premium available to them capped at 9.86 percent of their income (lower-income families are offered lower percent-of-income caps). The premium tax credit offered to those above 300 percent of FPL is

computed as the difference between the full premium for the second-lowest premium silver plan and 9.86 percent of their income. That highest 9.86 percent of income cap would, under this policy, apply not only to people with incomes between 300 and 400 percent of FPL, but to those with incomes at or about 300 percent of FPL. However, as income increases, it becomes more likely that a full premium would cost less than 9.86 percent of the person's or family's income, and thus, even eligible people will eventually not qualify for a nonzero tax credit.

The third option combines the capped provider payment/public option policy with the extension of premium tax credits to people with incomes above 400 percent of FPL.

Results

Effects on Insurance Coverage

Table 1 shows the estimated effects on insurance coverage of the capped

provider payment rates/public option, the extended premium tax credits, and the combination of both policies, as well as the differences in number and percent from current law for each option.

Capped provider payment rates/public option. Capping provider payment rates or, alternatively, offering a public plan option that uses provider payment rates set at the same level, would have a very modest effect on overall insurance coverage. The number of uninsured people would fall by 248,000 nationally, or 0.8 percent. This increase in coverage would result from the lower average cost of ACA-compliant nongroup coverage for people ineligible for premium tax credits. The effect is modest and would vary geographically, because the premium savings would be largest in areas with little or no insurer competition today and smaller in more competitive areas.

The number of people with STLD policies would fall by an additional 78,000, or 3.2 percent, as the cost of more comprehensive coverage decreases.

Table 1. Health Insurance Coverage Distribution of the Nonelderly (Thousands of People), Current Law Versus Reform, 2020

	Current Law ACA		Capped Provider Payment Rates or Public Option				Extend Premium Tax Credits above 400% FPL				Both Reforms Combined			
	Number	Percent	Number	Percent	Difference from Current Law	Percent Difference from Current Law	Number	Percent	Difference from Current Law	Percent Difference from Current Law	Number	Percent	Difference from Current Law	Percent Difference from Current Law
Insured (Minimum Essential Coverage)	240,271	87.3%	240,596	87.4%	325	0.1%	241,183	87.7%	912	0.4%	241,468	87.8%	1,196	0.5%
Employer	147,574	53.6%	147,574	53.6%	0	0.0%	147,417	53.6%	-157	-0.1%	147,441	53.6%	-134	-0.1%
Private nongroup	15,275	5.6%	15,382	5.6%	106	0.7%	16,326	5.9%	1,051	6.9%	16,370	5.9%	1,094	7.2%
Marketplace with PTC and BHP	9,075	3.3%	8,696	3.2%	-379	-4.2%	11,138	4.0%	2,063	22.7%	10,277	3.7%	1,202	13.2%
Full-pay nongroup	6,201	2.3%	6,685	2.4%	485	7.8%	5,188	1.9%	-1,012	-16.3%	6,093	2.2%	-108	-1.7%
Medicaid/CHIP	68,790	25.0%	69,010	25.1%	219	0.3%	68,809	25.0%	19	0.0%	69,026	25.1%	236	0.3%
Other public	8,632	3.1%	8,632	3.1%	0	0.0%	8,632	3.1%	0	0.0%	8,632	3.1%	0	0.0%
No Minimum Essential Coverage	34,862	12.7%	34,537	12.6%	-325	-0.9%	33,950	12.3%	-912	-2.6%	33,666	12.2%	-1,196	-3.4%
Uninsured	32,420	11.8%	32,172	11.7%	-248	-0.8%	31,856	11.6%	-564	-1.7%	31,624	11.5%	-796	-2.5%
Noncompliant nongroup	2,442	0.9%	2,365	0.9%	-78	-3.2%	2,094	0.8%	-348	-14.3%	2,042	0.7%	-401	-16.4%
Total	275,134	100.0%	275,134	100.0%	0	0.0%	275,134	100.0%	0	0.0%	275,134	100.0%	0	0.0%

Source: Urban Institute Health Insurance Policy Simulation Model, 2019.

Notes: ACA = Affordable Care Act. PTC = premium tax credit. BHP = basic health program.

Other forms of coverage would stay very stable. In total, the number of people with minimum essential coverage (those moving from STLD policies or uninsurance to enrolling in ACA-compliant coverage) would increase by 325,000.

Extension of premium tax credits to people with incomes above 400 percent of FPL. Extending premium tax credits to people with incomes above 400 percent of FPL would increase the number of people with ACA-compliant coverage by 912,000. The number of uninsured people would drop by 564,000 and the number of people with STLDs would fall by 348,000, both in response to comprehensive coverage being made more affordable for the population with incomes over 400 percent of FPL.

The number of people enrolled in nongroup coverage with premium tax credits would increase by 2.1 million, the result of shifts from uninsurance and STLDs and people gaining financial assistance for purchasing the ACA-compliant nongroup coverage for which they were paying the entire premium.

Both policies combined. With both policies in place, the number of uninsured people would decrease by 796,000, or 2.5 percent, and the number of people

with STLDs would fall by 401,000, or 16.4 percent. The number of people without ACA-compliant coverage would therefore decrease by 1.2 million, or 3.4 percent. Though the number of people with ACA-compliant nongroup coverage in this scenario would be about the same as in the preceding scenario with the extended tax credits alone, more of those people would pay the full premium in this combined policy scenario. That is because the capped provider payment rates/public option lowers the benchmark premium to the point that it falls below the applicable percentage of income for more people.

Breakdown of People Most Affected by Extended Premium Tax Credits

Some might wonder why the estimated effects of extending premium tax credits to higher-income people does not have a larger effect in reducing uninsurance. In fact, estimates by other researchers are higher than ours.⁵ The answer is twofold: First, some uninsured people have incomes above 400 percent of FPL, but they are ineligible for premium tax credits under this extension because they or a family member have offers of health insurance coverage from an employer that the law deems affordable. Some of these people fall into the so-called “family glitch” that already affects

some lower-income families under current law.⁶ Second, relatively few people who would be eligible for nonzero tax credits are otherwise uninsured. Most higher-income people are insured. The extended tax credits improve affordability significantly for a segment of eligible consumers, many of whom currently purchase nongroup insurance but shoulder higher financial burdens to obtain coverage. Others are ineligible because they are undocumented immigrants.

Second, the tax credit in the policy as defined is not large enough to change purchase decisions for a significant share of this higher-income segment of the uninsured population eligible for the credit. The highest applicable percent of income for premium tax credits under current law is 9.86. For many younger, single adults, the full benchmark premium for nongroup coverage would cost less than 9.86 percent, and as such, their extended tax credits would be effectively zero. For others, the amount of the credit would be too small to incentivize them to purchase coverage.

Table 2 shows that the number of people enrolled in ACA-compliant nongroup coverage plus the number of people enrolled in STLDs under current law, both of whom have incomes above

Table 2. Eligibility for Advanced Premium Tax Credits under Extension among People in Families with Incomes above 400 Percent of the Federal Poverty Level, by Current-Law Coverage Status, 2020 (Thousands of People)

	Number (Thousands)	% of Total with That Current Law Coverage Type
Number of People with Incomes above 400 Percent of FPL Enrolled in ACA-Compliant Nongroup Market under Current Law	3,900	100%
Newly eligible for nonzero APTC under the extended tax credit	1,288	33%
Number of Uninsured People with Incomes above 400 Percent of FPL	3,179	100%
Newly eligible for nonzero APTC under the extended tax credit	868	27%
Number of People with Incomes above 400 Percent of FPL Currently Enrolled in Noncompliant Coverage	1,038	100%
Newly eligible for nonzero APTC under the extended tax credit	318	31%

Source: Urban Institute Health Insurance Policy Simulation Model, 2019.

Notes: APTC = advanced premium tax credit. FPL = federal poverty level.

400 percent FPL and would be newly eligible for a nonzero tax credit under the extension policy (1.3 million and 318,000, respectively, for a total 1.6 million people), exceeds the number of uninsured people in that income and eligibility group (868,000). Of the 868,000 uninsured people that would be eligible for a new nonzero tax credit, we estimate that just under half would enroll, with the likelihood of their taking up the newly subsidized coverage increasing with the size of the tax credit for which they are eligible relative to the cost of the premium (see detail in appendix). As income increases and the tax credit decreases in size, the tax credit is less likely to induce uninsured people to enroll.

Nearly all people eligible for a new tax credit and already enrolled in ACA compliant nongroup coverage would take advantage of being able to purchase the same type of coverage they would buy on their own but at a reduced price.

Consequently, the number of people able to enroll in their current coverage more affordably far outweighs the number of people becoming insured because of the expanded tax credit eligibility. In addition, some people purchasing STLDs under current law would find the new tax credits attractive enough to move from their lower-benefit, higher cost-sharing STLD plans into ACA-compliant coverage.

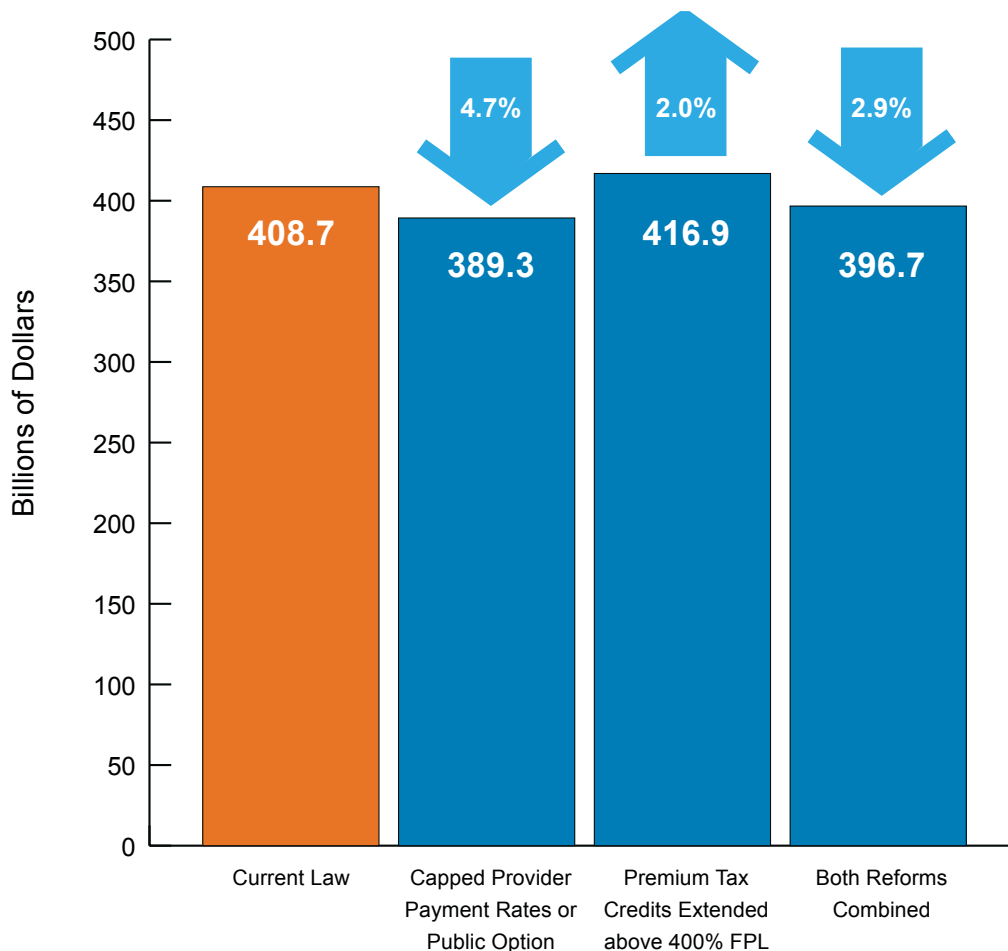
Effects on Federal Spending on Marketplace Tax Credits and Medicaid/CHIP Acute Care for the Nonelderly

Capped provider payment rates/public option. The first policy, on its own, would lower federal spending on health care by \$19.4 billion, or 4.7 percent, compared with current-law federal spending on marketplace tax credits and Medicaid/CHIP acute care for the nonelderly (Figure 1). The savings would vary across states, however, with the largest decreases in states with little competition and high marketplace premiums that

have not expanded Medicaid under the ACA (meaning federal funding is lower under current law). As shown in table 3, these states include Florida (14.0 percent decrease), Nebraska (19.5 percent decrease), and Wyoming (23.3 percent decrease). States that have substantial insurer competition in their marketplaces and have expanded Medicaid under the ACA would experience little change in federal funding, including the District of Columbia, Massachusetts, New Mexico, and Ohio.

Extension of premium tax credits to people with incomes above 400 percent of FPL. The second policy alone would increase federal health care spending by \$8.2 billion, or 2.0 percent, relative to current-law federal spending on marketplace tax credits and Medicaid/CHIP acute care for the nonelderly (Figure 1). States with larger numbers of uninsured people with incomes above 400 percent of FPL, as well as those with more higher-income nongroup market

Figure 1 . Federal Spending on Marketplace Premium Tax Credits and Medicaid/CHIP Acute Care for the Nonelderly under Current Law and Reforms



enrollees (i.e., lower rates of employer-based insurance), would experience the largest increases in federal spending under this policy. Larger numbers of higher-income nongroup enrollees mean more state residents already in the market would be eligible for and almost always take up the new tax credits. Larger numbers of higher-income uninsured people mean a state has more potential new enrollees under the policy. And to the extent that premiums in a state are high, the tax credits would tend to be larger. Premiums may be high because of lack of market competition, but more of the people newly eligible for tax credits may face higher premiums if they tend to be older. As shown in table 3, the largest percentage increases in federal funding would occur in Nebraska (9.8 percent), South Dakota (6.9 percent), and Wyoming (15.4 percent).

Both policies combined. Taken together, the two policies would decrease federal health care spending by \$12.0 billion, because the cost of larger numbers of people receiving premium tax credits would be more than offset by federal savings on all premium tax credits because of the lower provider payment rates (Figure 1). Savings are greater than the sum of the two policies because the additional spending introduced by extending the premium tax credits would be reduced by the capped provider payment rate/public option policy. States with the largest percentage decreases in federal funding would again be Nebraska and Wyoming, both experiencing decreases of approximately 15 percent. Alabama and Florida would each have 9 to 10 percent lower federal spending in their state under the combined policy.

Effects on the Distribution of Federal Spending on Premium Tax Credits

Table 4 shows the distribution of marketplace premium tax credits under current law and the reform policies by family income.

Capped provider payment rates/public option. Either capping provider payment rates or introducing a public option, along with increasing rebates for prescription drugs, would lower federal spending on marketplace tax credits by \$20.1 billion in 2020. The distribution of that spending by income group would not change appreciably, with 71 percent of the total going to those with incomes under 200 percent of FPL and 29 percent going to people with incomes between 200 and 400 percent of FPL. The percentage decrease in premium tax credits for the highest-income group (300 to 400 percent of FPL) is greater than that for the lower-income groups because the lower premiums make some people no longer eligible for tax credits (when the full premium falls below 9.86 percent of income).

Extension of premium tax credits to people with incomes above 400 percent of FPL. Extending the tax credits to higher-income groups as a standalone policy would increase federal spending on tax credits by \$8.1 billion in 2020. With this change, tax credits totaling \$5.8 billion would go to people in families with incomes between 400 and 600 percent of FPL and \$2.1 billion would go to those with incomes above 600 percent of FPL. Still, 60 percent of marketplace tax credit dollars would go to those with incomes below 200 percent of FPL and 28 percent would go to those with incomes between 200 and 400 percent of FPL.

Both policies combined. Implementing both policies simultaneously would decrease federal spending on tax credits by \$12.9 billion, or 21.3 percent. New spending on tax credits for some higher-income families would be more than offset by lower spending on all tax credit recipients resulting from the capped payment rates or public option. Again, most tax credits would remain devoted to lower-income families, with 65 percent going to families with incomes below 200 percent of FPL and 27 percent to those with incomes between 200 and 400

percent of FPL.

Effects on Aggregate Nonelderly Household Spending on Premiums and Out-of-Pocket Costs by Income Group

Table 5 shows the effect of each policy on aggregate household health care spending by income group.

Capped provider payment rates/public option. In total, capping provider payment rates or introducing a public option, along with increasing rebates for prescription drugs in the nongroup market, would decrease household premium and out-of-pocket spending by \$10.9 billion, or about 1.9 percent of current-law spending. These savings would be spread across the income distribution but would be largest for higher-income groups, where current-law health care spending is highest. For example, families with incomes below 150 percent of FPL would save a total of \$0.8 billion in 2020 (1.4 percent of current-law spending), and families with incomes above 600 percent of FPL would save \$3.8 billion, or 2.5 percent.

Extension of premium tax credits to people with incomes above 400 percent of FPL. As would be expected, only households with incomes above 400 percent of FPL would have measurable savings under extended marketplace premium tax credits. The savings, approximately \$1.7 billion in 2020, would be almost completely concentrated among families with incomes between 400 and 600 percent of FPL. Among those with incomes above 600 percent of FPL, relatively few people would be eligible for a nonzero tax credit because their full premiums would tend to be less than the 9.86 percent of income cap, and any credits that they qualify for would tend to be small compared with their income. These advanced premium tax credits, as well as lower premiums for those choosing nongroup coverage, would offset the increased number of people buying nongroup coverage, leaving overall health spending for the

Table 3. Federal Spending on Marketplace Premium Tax Credits and Medicaid/CHIP Acute Care for the Nonelderly under Current Law and Reforms, by State, 2020 (Millions of Dollars)

State	Current Law	Capped Provider Payment Rates or Public Option			Premium Tax Credits Extended above 400% FPL			Both Reforms Combined		
	Federal Spending	Federal Spending	Change from Current Law	Percent Change from Current Law	Federal Spending	Change from Current Law	Percent Change from Current Law	Federal Spending	Change from Current Law	Percent Change from Current Law
Alabama	5,309	4,749	-560	-10.5%	5,420	111	2.1%	4,850	-458	-8.6%
Alaska	1,372	1,280	-92	-6.7%	1,431	59	4.3%	1,286	-86	-6.3%
Arizona	11,396	11,074	-323	-2.8%	11,597	201	1.8%	11,268	-129	-1.1%
Arkansas	5,291	5,214	-77	-1.5%	5,328	37	0.7%	5,248	-43	-0.8%
California	50,327	49,591	-736	-1.5%	51,293	965	1.9%	49,959	-368	-0.7%
Colorado	6,149	5,939	-210	-3.4%	6,413	265	4.3%	6,198	50	0.8%
Connecticut	4,847	4,683	-164	-3.4%	4,945	98	2.0%	4,728	-119	-2.5%
Delaware	1,475	1,392	-83	-5.6%	1,515	40	2.7%	1,412	-63	-4.3%
District of Columbia	1,452	1,450	-2	-0.1%	1,457	5	0.4%	1,450	-2	-0.1%
Florida	25,089	21,585	-3,504	-14.0%	25,748	659	2.6%	22,570	-2,519	-10.0%
Georgia	10,738	9,935	-802	-7.5%	10,968	230	2.1%	10,174	-564	-5.3%
Hawaii	1,183	1,140	-42	-3.6%	1,204	21	1.8%	1,153	-29	-2.5%
Idaho	1,997	1,866	-131	-6.6%	2,057	59	3.0%	1,950	-47	-2.4%
Illinois	9,574	8,991	-583	-6.1%	9,918	344	3.6%	9,266	-308	-3.2%
Indiana	8,609	8,447	-162	-1.9%	8,667	58	0.7%	8,495	-114	-1.3%
Iowa	3,905	3,751	-155	-4.0%	4,116	210	5.4%	3,863	-43	-1.1%
Kansas	2,189	1,994	-194	-8.9%	2,298	110	5.0%	2,086	-103	-4.7%
Kentucky	8,884	8,700	-184	-2.1%	8,945	61	0.7%	8,745	-139	-1.6%
Louisiana	7,801	7,608	-193	-2.5%	7,887	86	1.1%	7,673	-128	-1.6%
Maine	2,122	2,036	-86	-4.0%	2,170	48	2.3%	2,084	-38	-1.8%
Maryland	7,437	7,053	-383	-5.2%	7,614	178	2.4%	7,168	-269	-3.6%
Massachusetts	7,839	7,772	-67	-0.8%	7,867	28	0.4%	7,787	-52	-0.7%
Michigan	14,193	13,973	-219	-1.5%	14,298	106	0.7%	14,108	-85	-0.6%
Minnesota	6,923	6,820	-103	-1.5%	7,015	92	1.3%	6,852	-70	-1.0%
Mississippi	4,883	4,559	-325	-6.6%	4,959	76	1.6%	4,624	-259	-5.3%
Missouri	8,350	7,854	-497	-5.9%	8,521	171	2.0%	7,981	-369	-4.4%
Montana	2,308	2,222	-86	-3.7%	2,374	66	2.9%	2,292	-16	-0.7%
Nebraska	1,808	1,456	-353	-19.5%	1,986	178	9.8%	1,539	-270	-14.9%
Nevada	3,256	3,073	-183	-5.6%	3,317	61	1.9%	3,137	-119	-3.6%
New Hampshire	1,007	942	-65	-6.4%	1,034	27	2.7%	986	-22	-2.1%
New Jersey	7,192	6,967	-224	-3.1%	7,233	41	0.6%	7,014	-178	-2.5%
New Mexico	5,392	5,354	-38	-0.7%	5,412	20	0.4%	5,377	-15	-0.3%
New York	28,824	28,159	-665	-2.3%	29,061	236	0.8%	28,474	-351	-1.2%
North Carolina	15,863	14,142	-1,720	-10.8%	16,373	510	3.2%	14,407	-1,456	-9.2%
North Dakota	520	491	-28	-5.4%	541	22	4.2%	512	-8	-1.6%
Ohio	14,649	14,465	-184	-1.3%	14,770	120	0.8%	14,639	-10	-0.1%
Oklahoma	5,019	4,534	-485	-9.7%	5,215	196	3.9%	4,716	-303	-6.0%
Oregon	6,237	6,057	-180	-2.9%	6,337	100	1.6%	6,161	-76	-1.2%
Pennsylvania	16,375	15,777	-598	-3.7%	16,652	277	1.7%	16,080	-295	-1.8%
Rhode Island	1,347	1,290	-57	-4.2%	1,354	7	0.5%	1,297	-50	-3.7%
South Carolina	5,592	4,877	-715	-12.8%	5,737	145	2.6%	4,979	-613	-11.0%
South Dakota	887	801	-86	-9.7%	949	61	6.9%	844	-43	-4.9%
Tennessee	8,620	7,981	-639	-7.4%	8,835	215	2.5%	8,204	-416	-4.8%
Texas	33,106	31,743	-1,363	-4.1%	33,657	551	1.7%	32,465	-642	-1.9%
Utah	3,503	3,182	-321	-9.2%	3,603	100	2.9%	3,327	-176	-5.0%
Vermont	1,203	1,162	-42	-3.5%	1,210	6	0.5%	1,169	-35	-2.9%
Virginia	9,297	8,574	-723	-7.8%	9,579	282	3.0%	8,980	-317	-3.4%
Washington	8,197	7,989	-208	-2.5%	8,454	257	3.1%	8,173	-24	-0.3%
West Virginia	2,999	2,913	-86	-2.9%	3,041	43	1.4%	2,954	-45	-1.5%
Wisconsin	5,575	5,283	-292	-5.2%	5,807	231	4.1%	5,518	-58	-1.0%
Wyoming	583	447	-136	-23.3%	673	90	15.4%	496	-87	-15.0%
Total	408,690	389,338	-19,352	-4.7%	416,854	8,164	2.0%	396,713	-11,977	-2.9%

Source: Urban Institute Health Insurance Policy Simulation Model, 2019.

Table 4. Federal Health Care Spending on Marketplace Premium Tax Credits, (Billions of Dollars), Current Law Versus Reform, 2020

	Current Law ACA		Capped Provider Payment Rates or Public Option				Extend Premium Tax Credits above 400% FPL				Both Reforms Combined			
	Dollars	Percent	Dollars	Percent	Difference from Current Law	Percent Difference from Current Law	Dollars	Percent	Difference from Current Law	Percent Difference from Current Law	Dollars	Percent	Difference from Current Law	Percent Difference from Current Law
Total Federal Spending	60.4	100%	40.2	100%	-20.1	-33.4%	68.4	100%	8.1	13.3%	47.5	100%	-12.9	-21.3%
Family income below 150% FPL	21.0	35%	14.7	37%	-6.3	-30.0%	21.0	31%	0.0	0.1%	15.8	33%	-5.2	-24.6%
Family income 150 to 200% FPL	19.9	33%	13.9	35%	-6.0	-30.1%	20.0	29%	0.0	0.2%	14.9	31%	-5.0	-25.1%
Family income 200 to 300% FPL	13.1	22%	8.2	20%	-4.9	-37.5%	13.1	19%	0.0	0.2%	9.0	19%	-4.1	-31.4%
Family income 300 to 400% FPL	6.3	10%	3.4	9%	-2.9	-46.0%	6.4	9%	0.0	0.3%	3.9	8%	-2.5	-38.9%
Family income 400 to 600% FPL	0.0	0%	0.0	0%	0.0	nc	5.8	9%	5.8	na	3.0	6%	3.0	na
Family income above 600% FPL	0.0	0%	0.0	0%	0.0	nc	2.1	3%	2.1	na	0.8	2%	0.8	na

Source: Urban Institute Health Insurance Policy Simulation Model, 2019.

Notes: ACA = Affordable Care Act. FPL = federal poverty level.

Table 5. Aggregate Household Health Care Spending on Premiums and Out-of-Pocket Costs for the Nonelderly Population, by Income, (Billions of Dollars), Current Law Versus Reform, 2020

	Current Law ACA		Capped Provider Payment Rates or Public Option				Extend Premium Tax Credits above 400% FPL				Both Reforms Combined			
	Dollars	Percent	Dollars	Percent	Difference from Current Law	Percent Difference from Current Law	Dollars	Percent	Difference from Current Law	Percent Difference from Current Law	Dollars	Percent	Difference from Current Law	Percent Difference from Current Law
Household Health Care Spending	561.3	100%	550.3	100%	-10.9	-1.9%	559.6	100%	-1.7	-0.3%	552.0	100%	-9.2	-1.6%
Family income below 150% FPL	59.1	11%	58.2	11%	-0.8	-1.4%	59.1	11%	0.0	0.0%	58.5	11%	-0.6	-1.0%
Family income 150 to 200% FPL	39.7	7%	39.1	7%	-0.6	-1.4%	39.8	7%	0.0	0.1%	39.2	7%	-0.5	-1.2%
Family income 200 to 300% FPL	92.7	17%	91.1	17%	-1.6	-1.7%	92.7	17%	0.1	0.1%	91.3	17%	-1.4	-1.5%
Family income 300 to 400% FPL	88.5	16%	87.3	16%	-1.2	-1.4%	88.6	16%	0.0	0.1%	87.5	16%	-1.0	-1.2%
Family income 400 to 600% FPL	127.0	23%	124.0	23%	-2.9	-2.3%	125.2	22%	-1.8	-1.4%	123.8	22%	-3.1	-2.5%
Family income above 600% FPL	154.3	27%	150.5	27%	-3.8	-2.5%	154.3	28%	0.0	0.0	151.7	27%	-2.6	-1.7%

Source: Urban Institute Health Insurance Policy Simulation Model, 2019.

Notes: ACA = Affordable Care Act. FPL = federal poverty level.

group essentially unchanged.

Both policies combined. With both policies in place, household spending on health care would fall by \$9.2 billion in total, or 1.6 percent. The savings are similar to those under the provider payment rate cap/public option alone for those with incomes below 400 percent of FPL. People with incomes between 400 and 600 percent of FPL would save from both components of the reform. Among those with incomes above 600 percent of FPL, costs associated with

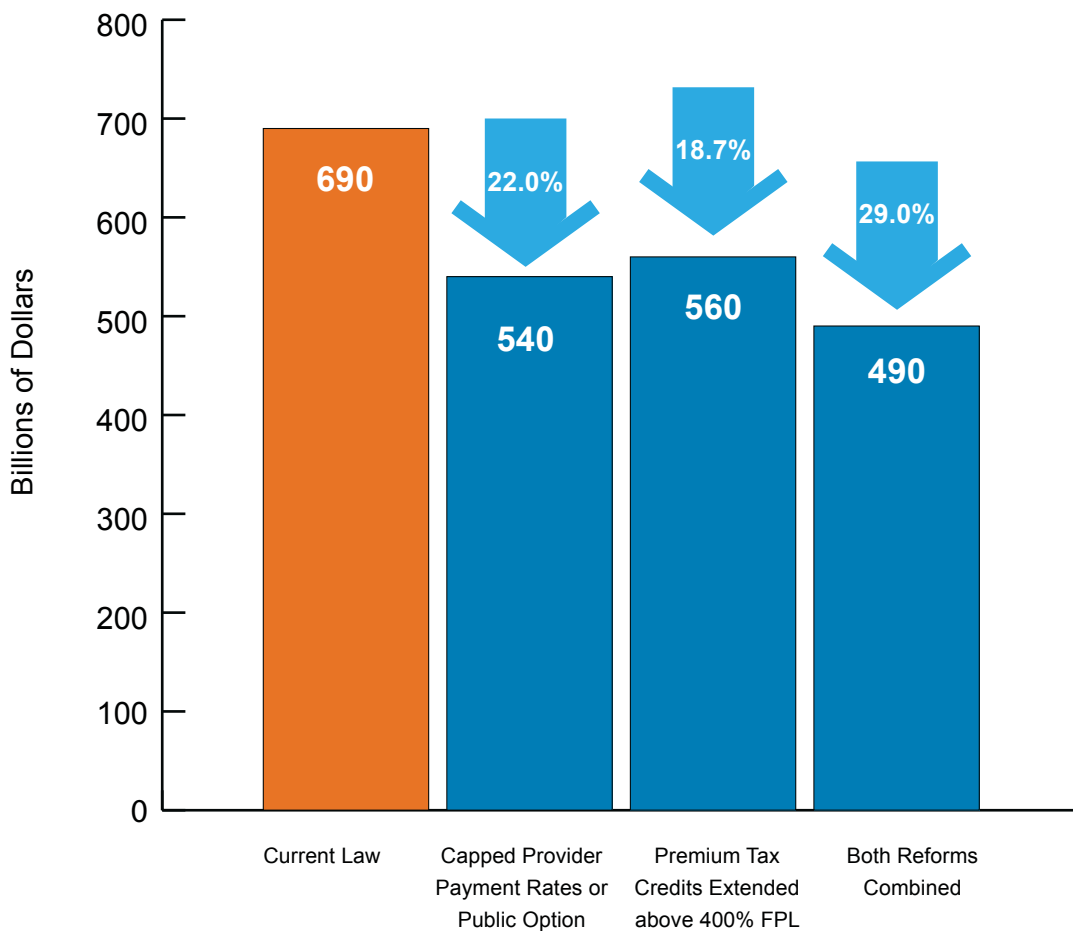
larger numbers of people enrolling in insurance coverage would offset some of the savings from the provider payment rate cap/public option, saving those households \$2.6 billion on health care.

Effect on Average Higher-Income Nongroup Enrollee Spending on Premiums and Out-of-Pocket Costs

Figure 2 shows how national average monthly health care spending (premiums plus out-of-pocket costs) by higher-

income marketplace enrollees would be affected by the reform options. We focus this analysis on ACA-compliant nongroup enrollees with incomes above 400 percent of FPL because they would be most affected by the reforms, separately and combined: The capped provider payment rate/public option lowers spending the most for people paying the full premium out of pocket (e.g., those with incomes too high to qualify for premium tax credits under current law). In addition, the extension

Figure 2. Average Per Enrollee Monthly Spending on Premiums and Out-of-Pocket Costs by Nongroup Enrollees with Incomes above 400 Percent of the Federal Poverty Level (Dollars)



of the premium tax credits specifically increases affordability for some people with incomes above 400 percent of FPL.

We also show the average effects by state in Table 6, because the reforms' effects vary significantly across geographic areas. People living in states

with higher premiums because of less competition would tend to save more with the capped rates/public plan than people living in states with highly competitive nongroup markets. The average savings from the extended tax credits would vary with the level of premiums under current law and the income distribution of

nongroup enrollees with incomes above 400 percent of FPL (because tax credits decrease as income increases).

Capped provider payment rates/public option. With capped provider payment rates or a public option, along with increased prescription drug rebates,

Table 6. Average Per Enrollee Monthly Spending on Premiums and Out-of-Pocket Costs by Nongroup Enrollees with Incomes above 400 Percent of the Federal Poverty Level (Dollars), by State, Current Law Versus Reform, 2020

State	Current Law	Capped Provider Payment Rates or Public Option			Extend Premium Tax Credits above 400% FPL			Both Reforms Combined		
	Dollars	Dollars	Difference	Percent Difference from Current Law	Dollars	Difference	Percent Difference from Current Law	Dollars	Difference	Percent Difference from Current Law
Alabama	710	415	-300	-41.8%	550	-165	-23.0%	415	-295	-41.6%
Alaska	1,240	710	-530	-42.8%	840	-400	-32.3%	640	-600	-48.5%
Arizona	685	500	-180	-26.6%	540	-145	-20.9%	480	-200	-29.5%
Arkansas	670	545	-120	-18.3%	615	-55	-8.2%	540	-130	-19.3%
California	650	595	-55	-8.3%	555	-95	-14.3%	515	-130	-20.5%
Colorado	870	690	-180	-20.4%	675	-195	-22.2%	615	-255	-29.3%
Connecticut	710	535	-175	-24.5%	580	-130	-18.3%	485	-225	-31.8%
Delaware	875	505	-375	-42.6%	590	-290	-32.8%	455	-420	-47.9%
District of Columbia	555	510	-50	-8.6%	530	-30	-5.3%	400	-160	-28.5%
Florida	750	560	-190	-25.3%	585	-165	-21.7%	505	-240	-32.2%
Georgia	640	460	-180	-27.8%	525	-115	-17.9%	440	-200	-31.2%
Hawaii	660	455	-200	-30.7%	545	-115	-17.3%	425	-230	-35.0%
Idaho	655	520	-135	-20.5%	490	-165	-25.3%	445	-210	-31.8%
Illinois	705	510	-195	-27.7%	560	-145	-20.3%	470	-230	-33.0%
Indiana	685	455	-225	-33.2%	620	-65	-9.2%	470	-215	-31.5%
Iowa	940	680	-260	-27.7%	580	-360	-38.2%	500	-440	-46.7%
Kansas	800	565	-235	-29.4%	575	-225	-28.4%	495	-305	-38.0%
Kentucky	725	465	-255	-35.4%	605	-120	-16.6%	460	-265	-36.7%
Louisiana	735	520	-215	-29.6%	620	-115	-15.5%	495	-240	-33.0%
Maine	845	665	-180	-21.2%	620	-230	-27.1%	565	-285	-33.4%
Maryland	675	415	-260	-38.4%	580	-95	-14.0%	435	-240	-35.6%
Massachusetts	575	535	-35	-6.3%	555	-20	-3.6%	520	-55	-9.5%
Michigan	585	505	-80	-13.5%	520	-60	-10.6%	485	-100	-17.0%
Minnesota	625	510	-110	-17.9%	545	-80	-12.9%	465	-160	-25.8%
Mississippi	860	430	-430	-50.2%	675	-185	-21.7%	440	-420	-49.0%
Missouri	705	465	-235	-33.6%	555	-150	-21.1%	445	-255	-36.4%
Montana	825	640	-185	-22.5%	565	-260	-31.4%	515	-310	-37.4%
Nebraska	900	570	-330	-36.5%	530	-370	-41.1%	420	-480	-53.2%
Nevada	705	435	-270	-38.1%	585	-120	-17.2%	460	-240	-34.3%
New Hampshire	640	465	-175	-27.3%	535	-105	-16.3%	465	-175	-27.6%
New Jersey	575	455	-120	-21.1%	550	-25	-4.1%	460	-115	-20.1%
New Mexico	635	520	-115	-18.0%	540	-90	-14.5%	485	-145	-23.0%
New York	765	700	-65	-8.8%	670	-95	-12.6%	630	-135	-17.8%
North Carolina	770	500	-275	-35.5%	520	-255	-32.8%	420	-350	-45.4%
North Dakota	715	540	-180	-24.9%	560	-155	-21.7%	500	-220	-30.5%
Ohio	630	525	-105	-16.7%	555	-75	-11.9%	520	-110	-17.7%
Oklahoma	660	455	-205	-31.1%	410	-250	-38.0%	355	-305	-46.1%
Oregon	635	495	-140	-21.9%	520	-115	-18.1%	460	-170	-27.0%
Pennsylvania	710	525	-185	-26.1%	580	-130	-18.6%	485	-225	-31.8%
Rhode Island	680	475	-205	-30.3%	615	-65	-9.8%	470	-210	-30.8%
South Carolina	715	445	-275	-38.2%	515	-200	-28.0%	410	-310	-43.0%
South Dakota	755	560	-195	-25.9%	535	-220	-29.0%	465	-290	-38.4%
Tennessee	645	435	-210	-32.7%	475	-170	-26.2%	395	-250	-38.5%
Texas	590	470	-120	-20.5%	485	-100	-17.4%	440	-150	-25.7%
Utah	590	470	-125	-21.0%	410	-180	-30.4%	385	-210	-35.2%
Vermont	745	545	-205	-27.2%	705	-40	-5.7%	555	-195	-25.9%
Virginia	720	520	-200	-27.7%	560	-160	-22.5%	490	-230	-32.2%
Washington	845	695	-150	-17.8%	685	-160	-18.9%	610	-235	-27.6%
West Virginia	830	440	-395	-47.2%	600	-230	-27.9%	455	-375	-45.1%
Wisconsin	810	670	-140	-17.4%	595	-215	-26.3%	560	-250	-31.0%
Wyoming	1,155	675	-480	-41.6%	635	-520	-45.2%	520	-635	-54.9%
National Average	690	540	-150	-22.0%	560	-130	-18.7%	490	-200	-29.0%

Source: Urban Institute Health Insurance Policy Simulation Model, 2019.

Notes: ACA = Affordable Care Act.

the average higher-income nongroup enrollee would spend \$150 less per month in premiums and out-of-pocket costs than under current law. Average monthly savings range from \$530 in Alaska, a particularly high-cost, low-competition state (current-law average spending for this group is \$1,240 per month) and \$480 in Wyoming (current-law average spending of \$1,155 per month) and down to \$35 in Massachusetts, \$50 in the District of Columbia, and \$55 in California, states with considerably lower current-law spending and competitive nongroup insurance markets.

Extension of premium tax credits to people with incomes above 400 percent of FPL. Average monthly savings per higher-income enrollee with the extended tax credits alone would be similar to those under the capped provider payment rates/public option reform, at \$130. However, the savings would be distributed somewhat differently because the enrollee income distribution above 400 percent FPL would play a bigger role here, in addition to current-law premium levels. Average spending would be more than 35 percent lower compared with current law in Iowa, Oklahoma, Nebraska, and Wyoming, all of which have high current-law premiums and are not high-income states. Alaska, Delaware, Montana, and North Carolina enrollees with incomes above 400 percent of FPL would also see large relative savings for similar reasons. At the other end of the spectrum, states like the District of Columbia, Massachusetts, New Jersey, and Vermont that have lower current-law premiums and higher income distribution above 400 percent of FPL would experience very little savings.

Both policies combined. The two policies combined would lead to average enrollee health care savings greater than either policy implemented in isolation. Average higher-income household savings under the combined approach would exceed 45 percent in nine states: Alaska, Delaware, Iowa, Mississippi, Nebraska, North Carolina, Oklahoma, West Virginia, and Wyoming. States

where enrollees would save the least in percentage terms include Massachusetts (9.5 percent), Michigan (17.0 percent), and Ohio (17.7 percent).

Discussion

An array of improvements to the ACA and more comprehensive reforms to the health insurance system have been introduced in Congress and are being debated in the context of the 2020 presidential election. All provide particular advantages and tradeoffs. Centrally, the greater the increases in household affordability, the greater the additional federal government cost. Simultaneously, there is a growing recognition that high premiums in some geographic areas are driven by high average payment rates to health care providers, because of consolidation of hospital and health systems, lack of competition among insurers, or a combination of the two.

Consequently, we present a limited package of reforms that, when taken together, would improve health insurance coverage affordability among a limited population without necessitating an increase in government revenues. This set of reforms would extend the top ACA premium tax credit percent-of-income cap above 400 percent of FPL and would either cap the provider payment rates insurers in the ACA-compliant nongroup insurance markets pay at approximately Medicare levels or introduce a public plan option in those markets that would pay providers at those same rates.

The chief beneficiaries of this set of reforms would be those currently ineligible for ACA premium tax credits in the nongroup market because their incomes exceed 400 percent of FPL. We estimate that the number of people with comprehensive health insurance coverage would increase by 1.2 million, and the average monthly health care spending by nongroup insurance enrollees with incomes above 400 percent of FPL would decrease by \$200 in 2020, or 29 percent. In addition, federal government spending would decrease

by \$12.0 billion in 2020, or 2.9 percent of current-law spending on marketplace subsidies and Medicaid acute care for the nonelderly.

In these estimates, we assume that either a public option or capped provider payment rates in the nongroup insurance market would bring down the marketplace benchmark premiums to approximately Medicare payment rate levels. Though this is possible, levels at which insurers pay providers vary widely in the current commercial insurance markets, and there would certainly be political resistance from providers in reducing payment levels. The nongroup market is a small part of total health care spending, and thus system-wide disruption to limiting payment rates only in these markets would likely be very small. However, the efficient level of pricing across providers of different types and across geographic areas is not knowable, a priori, and maintaining sufficient access to and quality of care may require higher payment rates at least in some areas (e.g., rural areas) and to some types of providers. In that case, federal and household savings from these types of policies would be somewhat lower than estimated here. In addition, if the federal government did not require prescription drug rebates as large as those assumed here, federal and household savings would be lower as well.

Extending the premium tax credits alone, without regulation of rates or a public option, would increase federal government costs by \$8.2 billion in 2020 and would reduce household health care spending by nongroup purchasers in this higher-income group by about 19 percent. Still, limiting provider payment rates or introducing a public option using payment rates lower than the current private insurer average but still somewhat higher than Medicare's rates could improve affordability for this population while producing some smaller government savings.

Appendix. Eligibility for Advanced Premium Tax Credits under Extension and Enrollment in Nongroup Coverage among People in Families with Income above 400 Percent of the Federal Poverty Level, by Current-Law Insurance Status, 2020 (People in Thousands)

	Enrollment in Nongroup Coverage after Extension of APTCs			
	Number (Thousands)	% of Total with That Current Law Coverage Type	Number (Thousands)	Percent Enrolling in Nongroup Coverage under Extension of Credits
Number of People with Incomes above 400 Percent of FPL Enrolled in ACA-Compliant Nongroup Market under Current Law	3,900	100%	3,894	100%
Not technically eligible for APTC (not legally present or has an affordable ESI offer in family)	1,486	38%	1,483	100%
Technically eligible for APTC (legally present and without an affordable ESI offer; before testing income vs. premium)	2,414	62%	2,411	100%
Income too high to qualify for APTC greater than zero	1,126	29%	1,124	100%
Newly eligible for nonzero APTC under the extended tax credit	1,288	33%	1,288	100%
Eligible for an APTC that would lower their premium by less than 20%	262	7%	262	100%
Eligible for an APTC that would lower their premium by 20% to 40%	293	8%	293	100%
Eligible for an APTC that would lower their premium by 40% to 60%	284	7%	284	100%
Eligible for an APTC that would lower their premium more than 60%	449	12%	449	100%
Number of Uninsured People with Incomes above 400 Percent of FPL	3,179	100%	514	16%
Not technically eligible for APTC (not legally present or has an affordable ESI offer in family)	1,482	47%	15	1%
Technically eligible for APTC (legally present and without an affordable ESI offer; before testing income vs. premium)	1,698	53%	499	29%
Income too high to qualify for APTC greater than zero	830	26%	73	9%
Newly eligible for nonzero APTC under the extended tax credit	868	27%	429	49%
Eligible for an APTC that would lower their premium by less than 20%	210	7%	32	15%
Eligible for an APTC that would lower their premium by 20% to 40%	214	7%	87	40%
Eligible for an APTC that would lower their premium by 40% to 60%	184	6%	119	65%
Eligible for an APTC that would lower their premium more than 60%	259	8%	191	74%
Number of People with Incomes above 400 Percent of FPL Currently Enrolled in Noncompliant Coverage	1,038	100%	347	33%
Not technically eligible for APTC (not legally present or has an affordable ESI offer in family)	418	40%	5	1%
Technically eligible for APTC (legally present and without an affordable ESI offer; before testing income vs. premium)	621	60%	343	55%
Income too high to qualify for APTC greater than zero	303	29%	150	50%
Currently noncompliant insured, newly eligible for nonzero APTC under the extended tax credit	318	31%	192	60%
Eligible for an APTC that would lower their premium by less than 20%	69	7%	26	38%
Eligible for an APTC that would lower their premium by 20% to 40%	82	8%	47	57%
Eligible for an APTC that would lower their premium by 40% to 60%	74	7%	50	68%
Eligible for an APTC that would lower their premium more than 60%	94	9%	69	74%

Source: Urban Institute Health Insurance Policy Simulation Model, 2019.

Notes: FPL = federal poverty level. ACA = Affordable Care Act. APTC = advanced premium tax credit. ESI = employer-sponsored insurance.

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The views expressed are those of the authors and should not be attributed to the Robert Wood Johnson Foundation or the Urban Institute, its trustees, or its funders.

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Linda J. Blumberg is an Institute Fellow, Michael Simpson is a Principal Research Associate, and Matthew Buettgens is a Senior Fellow in the Urban Institute’s Health Policy Center. The authors thank John Holahan for comments and suggestions and Rachel Kenney for editorial assistance. In addition to Matthew Buettgens and Michael Simpson, Clare Wang Pan and Robin Wang are part of the HIPSM technical development team, and thus their work contributes to all HIPSM-based analyses.

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Sabotage Watch: Tracking Efforts to Undermine the ACA

President Trump has said that, politically, the best thing to do would be to let the Affordable Care Act (ACA) “explode.” This timeline tracks Administration actions that would sabotage the ACA by destabilizing private insurance markets or reversing the law’s historic gains in health coverage.

For a graphic summarizing administration actions against the Affordable Care Act, [click here](#).

Last updated June 14

August 2019

August 1

As part of an executive order to “improv[e]... transparency in American healthcare,” the Trump Administration proposes increasing the tax advantages for two products — health care sharing ministries and direct primary care arrangements — that are sometimes marketed or used by consumers as an alternative to health insurance, even though they provide far more limited benefits and don’t provide the same consumer protections.

The executive order calls for the Treasury Secretary to propose regulations that would define expenses related to “certain types of arrangements, potentially including direct primary care arrangements and health care sharing ministries,” as eligible for certain tax breaks under the tax code. Far from improving transparency, new tax incentives for these arrangements would almost certainly leave more people with large coverage gaps that they don’t understand, particularly when misleading marketing convinces them that they’re enrolling in comprehensive health insurance. Several states have taken action against one health care sharing ministry for misleading consumers and then leaving them with tens of thousands of dollars in unpaid medical bills.

Boosting these two arrangements would only expose more people to costly risks, while potentially raising premiums for health insurance that meets ACA standards, by luring healthier people who cost less to cover out of ACA insurance risk pools.

June 2019

June 13

The Trump Administration finalizes a rule on health reimbursement arrangements (HRAs) that will likely lead employers to shift millions of workers from traditional employer-sponsored group health plans to individual coverage with a limited employer contribution. Under the rule, employers can forgo offering coverage and instead contribute money to a tax-free account for employees, who would then use it to help buy their own coverage. The complexity of enrolling in an individual plan (compared to employer coverage) could lead to more employees losing coverage and will make employees more susceptible to broker schemes that enroll them in skimpy plans instead of comprehensive coverage.

Employers with sicker workers are likelier to take up this option, which could raise premiums for everyone in the marketplace. It comes at a cost to taxpayers of \$51 billion over ten years — resources that could have been used to make existing forms of coverage more affordable.

May 2019

May 24

The Trump Administration proposes weakening federal rules that protect LGBTQ people, women, people with limited English proficiency, and others from discrimination in health care settings and programs. If the rule is implemented as proposed, more people would likely avoid seeking medical attention, fail to get health care coverage, not understand their benefits, or not get coverage of benefits they need.

Section 1557 of the Affordable Care Act prohibits health programs and facilities that receive federal funds (and federally administered health programs and activities) from discriminating based on race, color, national origin, age, disability, or sex. The proposed rules would roll back major provisions of existing rules (issued in 2016) that implement section 1557. Among other things, they would eliminate specific nondiscrimination protections based on sex, gender identity, and association and remove requirements ensuring that people can get significant communications about their health care and coverage in languages other than English.

The Administration also proposes to narrow the scope of section 1557 so that protections against discrimination would apply to fewer Department of Health and Human Services programs and to fewer health products that insurers offer. The proposed rules will be open for a 60-day comment period.

May 23

Adding to the atmosphere of fear deterring immigrant families from accessing needed services such as health coverage, President Trump directs agencies, including the Department of Health and Human Services, to review policies related to certain immigrants who have sponsors and receive benefits such as Medicaid and the Children's Health Insurance Program. Agencies are asked to identify their policies on attributing sponsors' income when calculating financial eligibility for sponsored immigrants and on holding sponsors accountable if people they sponsor use certain benefit programs. Many immigrants who have sponsors subject to these policies are not eligible for public benefit programs and those who are eligible already participate at low rates because of concerns related to their immigration status. Nonetheless, the new review of policies will likely deter additional people from participating and increase the number of eligible people who go without needed services such as health coverage and food assistance.

May 6

The Office of Management and Budget (OMB) releases a notice seeking comment on a proposal that would reduce eligibility for Medicaid and cut premium tax credits for millions of people by changing how the official poverty line is adjusted each year. More specifically, OMB is floating a proposal to update the poverty line using a lower measure of inflation (the "chained CPI"). That would make the poverty line lower than it otherwise would be, reducing eligibility for health coverage programs as well as for nutrition programs and certain other forms of assistance. The impact of the proposal would be small at first, but would increase each year it was in effect. The Administration is advancing this proposal to weaken coverage and other safety net programs even as tens of millions people remain uninsured or struggle to afford coverage, and despite evidence that the poverty line is already below what is actually needed to raise a family.

April 2019

April 18

The Centers for Medicare and Medicaid Services (CMS) finalizes a rule that raises premiums for 7.3 million people who purchase subsidized coverage in the ACA marketplace and is expected to cause 70,000 to drop insurance coverage. The change will also increase limits on total out-of-pocket costs for millions of people, including many with employer coverage, meaning families that experience costly illnesses or injuries could face an additional \$400 a year in medical bills. The Administration finalized the policy even though, as the final rule itself notes, "all commenters on this topic expressed opposition to or concerns about the proposed change."

The rule scales back the scope of navigator duties so that important consumer assistance functions, like helping applicants appeal eligibility denials, are now considered "optional." It also eliminates certain training requirements, like training on basic health insurance concepts, the benefits of enrolling in the marketplace, and providing culturally and linguistically appropriate services.

March 2019

March 29

The Centers for Medicare & Medicaid Services (CMS) issues its initial approval of Utah's Medicaid waiver expanding coverage to some low-income adults but rejecting a full expansion that would have covered tens of thousands more. The waiver approval is the latest step in a rollback of the ballot initiative that Utah voters approved in November 2018 instructing the state to adopt the ACA's Medicaid expansion and extend Medicaid coverage to 150,000 Utahns. The first step in the rollback came in February 2019, when the Utah legislature repealed the voter-approved expansion and directed the state to pursue a series of waivers that would provide less coverage than the voter initiative would have.

The approved waiver is the second step in the rollback. Under the waiver, CMS gave Utah unprecedented authority to arbitrarily cap enrollment based solely on state funding decisions, and it also approved the state's proposal to take coverage away from people not meeting job training and search requirements. The third step will come later this year when CMS will make a decision on Utah's requests to receive the ACA's higher matching rate for federal funding without fully expanding Medicaid to people with incomes up to 138 percent of the poverty line (an approach that CMS has repeatedly refused to approve, including under the Trump Administration), and impose a per capita cap on funding for expansion enrollees, meaning that the federal government would only provide funding up to a pre-determined per-person limit.

March 25

In a two-sentence letter, the Department of Justice (DOJ) asks the U.S. Court of Appeals for the Fifth Circuit to invalidate the entire Affordable Care Act (ACA). This would cause millions of people to lose health coverage and make coverage worse or less affordable for millions more, including up to 130 million people with pre-existing conditions.

In December a federal district court judge sided with a partisan group of state attorneys general and struck down the entire ACA in an opinion that even conservative legal experts called "embarrassingly bad." The DOJ had already declined to defend the constitutionality of the law and urged the district court to end the ACA's protections for people with pre-existing conditions but stopped short of seeking to nullify the entire law.

In the near term, the Trump Administration's new offensive against the ACA will likely cause confusion, uncertainty, and anxiety for people who depend on the ACA for access to health coverage and care. If the Administration prevails in court, the outcome would be far worse.

March 15

The Centers for Medicare & Medicaid Services approves a waiver proposal from Ohio that would let the state take Medicaid coverage away from people who aren't working or engaged in qualifying work activities for 80 hours a month — despite the evidence from Arkansas that it will lead thousands of residents to lose coverage. Some *93 percent* of comments submitted during Ohio's comment period opposed the waiver (with only 4 percent in support), scheduled to take effect on January 1, 2021. Ohio estimates that 18,000 people will lose their Medicaid coverage because they are unable to meet the work requirement, but this estimate is likely too low, and many who should be exempt will likely lose coverage due to difficulty navigating the appraisal process and falling through the cracks.

Ohio says its goals are to "promote economic stability and financial independence" and "improve health outcomes." The reality is that since the state adopted the Medicaid expansion in 2014 it has made tremendous progress toward these objectives *without a work requirement*, including reported declines in unmet health needs and improved access to mental health services and treatment for chronic health conditions. And 75 percent of those who were unemployed and looking for work said having Medicaid made their job search easier; half of those already employed said Medicaid made it easier to stay working.

January 2019

January 18

With approval from the Centers for Medicare and Medicaid Services in hand, Arizona appears poised to move forward with policies that will reduce coverage, make it harder for people to access affordable care, and increase financial hardship. Arizona's waiver lets the state take away Medicaid coverage from people who aren't working or engaged in qualifying work activities for 80 hours per month — despite mounting evidence from Arkansas that it will lead thousands of residents to lose coverage, including working people and people with serious health needs. The waiver also lets the state halt payments to hospitals and other safety net providers for retroactive coverage, an important provision that protects beneficiaries against medical debt and ensures the financial stability of Arizona's safety net.

January 17

The Centers for Medicare and Medicaid Services (CMS) proposes changes to a technical insurance formula that would leave the large majority of people who purchase subsidized marketplace coverage under the Affordable Care Act — at least 7.3 million marketplace consumers — paying higher premiums. The change would also lead 100,000 people to drop marketplace coverage each year, by the Administration's own estimates. It would also raise limits on total out-of-pocket costs for millions of people, including many with employer coverage, leaving families that experience costly illnesses or injuries facing an additional \$400 per year in medical bills and hitting people with pre-existing conditions especially hard.

CMS also suggests it may make other damaging changes in the future, by eliminating two practices known as silver loading and auto-reenrollment. Silver loading was insurers' response to the Trump Administration's 2017 decision to stop making cost-sharing reduction (CSR) payments to insurers. Insurers increased their premiums for silver plans to account for the cost of providing CSRs (in the form of lower deductibles and other cost-sharing charges) to roughly 6 million low- and moderate-income people. Prohibiting silver loading would further increase consumers' premiums and possibly cause insurers to reconsider participating in the marketplace. Eliminating auto-reenrollment, a practice that automatically puts people who are covered by a marketplace plan at year's end into a plan for the next year, would also reduce marketplace enrollment and leave more consumers uninsured.

December 2018

December 21

The Centers for Medicare & Medicaid Services (CMS) approves Michigan's Medicaid waiver proposal, clearing the state to move forward with a new policy to take Medicaid coverage away from people who aren't working or engaged in qualifying work activities for 80 hours a month. Michigan's waiver is scheduled to take effect on January 1, 2020. As many as 183,000 people, or 27 percent of Michiganders covered under the state's Medicaid expansion, will lose their coverage over a one-year period, according to a February 2019 analysis by Manatt Health. That's consistent with evidence from Arkansas showing that such a policy will lead thousands of residents to lose coverage.

CMS approved Michigan's waiver despite ample evidence showing Medicaid expansion has improved the health of low-income Michiganders and made it easier for them to maintain employment and look for work. For example, nearly 48 percent of enrollees surveyed reported improvements in their physical health since enrolling in the program. And over half of non-working adults reported that Medicaid makes it easier to look for work, while nearly 70 percent of working adults said Medicaid made it easier to work or made them better at their jobs.

December 14

A day before the end of open enrollment, a U.S. District Court judge in Texas issues an opinion striking down the entire Affordable Care Act (ACA) in an action brought by 20 states' attorneys general. The Department of Justice had declined to defend the constitutionality of the law and instead urged the court to invalidate the ACA's protections for people with pre-existing conditions; the judge's opinion goes further and strikes down the entire law.

Judge Reed O'Connor's decision doesn't include an injunction ordering the Administration to stop enforcing the law, and the White House has affirmed that the ACA remains the law of the land pending appeal. And legal experts across the political spectrum, including some who opposed the ACA and supported previous legal challenges to the law, have called the case "absurd" and the decision "embarrassingly bad" and said it "makes a mockery of the rule of law and basic principles of democracy." Even some committed opponents of the ACA have predicted the decision will be overturned on appeal.

If the decision were implemented, it would cause millions of people to lose health coverage and make coverage worse or less affordable for millions more. In the meantime, it is likely to result in confusion, uncertainty, and anxiety for people who depend on the ACA for access to health coverage and care.

November 2018

November 30

With approval from the Centers for Medicare & Medicaid Services in hand, New Hampshire appears poised to move forward with a new policy to take away Medicaid coverage from people who aren't working or engaged in qualifying work activities for 100 hours per month – despite mounting evidence from Arkansas that it will lead thousands of residents to lose coverage, including working people and people with serious health needs. New Hampshire's policy is even harsher than Arkansas', as its 100-hour threshold exceeds the 80 hours that Arkansas requires, and it applies to more adults – those up to age 64 versus 49 in Arkansas as well as parents of children age 6 and older. New Hampshire's policy also makes it much harder for beneficiaries to maintain their coverage if they need more than one month to make up missed hours from a previous month.

November 29

The Centers for Medicare & Medicaid Services (CMS) releases several "waiver concepts" that invite states to "break away" from federal health care protections and standards – specifically by reviving many of the ideas that were proposed (but failed) during efforts in 2017 to repeal the Affordable Care Act (ACA). CMS encourages states to restructure and redirect funding that would otherwise be used for ACA subsidies for low- and moderate-income people. One prominent suggestion: a flat tax credit based only on age, instead of the current ACA premium credit structure that also takes income into account. In addition, CMS encourages states to let financial assistance be used for "different types of health insurance plans" that are not available through ACA marketplaces – including those, such as short-term plans, that don't provide the ACA's protections for people with pre-existing conditions and that offer much skimpier coverage.

These ideas would lead to dramatic cuts in subsidies for people who currently receive them, inadequate coverage, and the unraveling of the markets where people with pre-existing conditions are protected. While states still must show they'll meet guardrails under section 1332 "state innovation" waivers (related to the number of people covered, affordability, comprehensiveness, and deficit neutrality), CMS is sending the overall message with its new waiver concepts that the Administration wants states to craft proposals that make a sharp turn away from the ACA.

November 20

The Department of Health and Human Services (HHS) re-approves Kentucky's Medicaid waiver after a federal district court struck down an almost identical earlier version. The waiver would take coverage away from beneficiaries who don't meet a work requirement, pay premiums, or report changes or renew their coverage on time, causing tens of thousands of people to lose coverage, according to Kentucky's own estimates. The early experience in Arkansas, which implemented its work requirement in June, shows the danger ahead in Kentucky: over 12,000 Arkansas Medicaid beneficiaries have already lost Medicaid coverage and have likely become uninsured. Kentucky's work requirement is even more stringent than Arkansas' and applies to far more beneficiaries. The new approval letter fails to show how the waiver could possibly advance Medicaid's objectives – setting the stage for further action in court.

October 2018

October 31

The Department of Health and Human Services (HHS) approves Wisconsin's Medicaid waiver, which will allow the state to take coverage away from people with incomes below the poverty line if they don't pay \$8 monthly premiums, meet a work requirement, or complete a health risk assessment. Wisconsin is the first state allowed to take Medicaid coverage away from people with incomes as low as 50 percent of the poverty line – or about \$500 per month for an adult without dependents – if they don't pay monthly premiums.

October 29

The Departments of Treasury, Labor, and Health and Human Services propose a regulation that would encourage employers to shift workers from traditional employer-sponsored group health plans to individual coverage with a limited employer contribution. Health reimbursement arrangements (HRAs) are individual accounts employers can fund tax-free; to unlock the account, an employee would need to enroll in individual market coverage.

This shift from group to individual plans can negatively affect employees and people who rely on the individual insurance market. Some employees offered HRAs may find individual market coverage difficult to understand compared to the simplicity of enrolling in a group plan, fail to complete enrollment, and end up uninsured. Employers with sicker workforces will be the most motivated to end traditional coverage and dump employees in the individual market, raising costs for coverage there. According to the Administration's own estimates, this rule would result in nearly 7 million fewer people having traditional group coverage by 2028.

October 22

The Trump Administration releases new guidance that drastically changes how the federal government will evaluate states' proposals for so-called section 1332 waivers, opening the door to waiver proposals that could slash financial help for low-income people and undermine the markets where people can access coverage regardless of their pre-existing conditions. The waivers, which were part of the Affordable Care Act (ACA), let states modify how they implement key elements of the ACA provided they meet four guardrails related to coverage, affordability, comprehensiveness, and deficit neutrality.

In the new guidance, the Administration makes sweeping changes to these guardrails. It says it's willing to approve waivers as long as a comparable number of people have some form of coverage – even if that coverage is through substandard plans with limited benefits – and as long as affordable and comprehensive coverage remains available in the state – even if people aren't actually enrolled in such coverage. The Administration's guidance gives states more leeway to curb protections and raise out-of-pocket costs for people with high-cost health needs, putting the ACA's progress in this area at risk.

October 10

The Department of Homeland Security proposes a rule that would radically change "public charge" policies. If finalized, the rule would direct immigration officials to reject applications from individuals who seek lawful permanent resident status, or seek to enter the United States, if they have received – or are judged likely to receive in the future – any of an extensive array of benefits tied to need, including Medicaid. Though the rule has not been finalized, nor does it include marketplace subsidies as a program that would be viewed negatively in a public charge determination, the policy is complex and confusing and has stoked fear among immigrant families. As a result, many individuals eligible for programs such as Medicaid and marketplace coverage are deciding not to sign up.

October 2

New federal rules take effect that let a parallel market for skimpy plans operate alongside the Affordable Care Act's (ACA) market for comprehensive individual health insurance. The rules allow short-term plans exempt from the ACA's pre-existing condition protections and benefit standards to last for up to one year, compared to three months under prior rules, and to be renewed. While a number of states have taken action to block short-term plans, in most places, consumers are exposed to new risks. Healthy people who enroll in these plans may face benefit gaps and be exposed to catastrophic costs if they get sick and need care. And because short-term plans will likely offer lower premiums to healthy people (because the plans include reduced benefits), they will lure healthy enrollees away from the individual and small-group markets, leaving behind a group that's costlier to insure. This dynamic, known as adverse selection, will raise premiums for traditional, more comprehensive health coverage and undermine ACA protections for people with pre-existing conditions.

September 2018

September 12

The Department of Health and Human Services (HHS) announces that only 39 groups will receive navigator funding in the 34 states where the federal government runs the Affordable Care Act (ACA) marketplace. Many states will have large areas with no navigators and a few states will have no navigator program at all.

Moreover, HHS is encouraging navigators to inform people about the availability of skimpy plans such as short-term plans and association health plans, which are exempt from many ACA consumer protections that shield people – particularly those with pre-existing conditions – from high out-of-pocket costs and substandard benefits.

August 2018

August 23

Data that the Trump Administration used to make funding decisions for the navigator program last year were “problematic for multiple reasons,” the Government Accountability Office (GAO) finds. (See our explanation.) GAO also notes that HHS’ failure to set enrollment targets for the marketplace reduced its ability to monitor the agency’s performance and make informed decisions about allocating resources.

August 1

The Trump Administration releases rules to expand the use of short-term health plans as an alternative to plans that meet more stringent standards under the Affordable Care Act (ACA). Short-term plans, which have been limited to no more than three months, will now be able to last for up to one year, mimicking regular health insurance even though short-term plans do not have to meet most standards and consumer protections that apply to regular health insurance. For example, short-term plans do not have to cover the ACA’s essential health benefits and frequently do not include maternity services, prescription drugs, mental health care, and substance use disorder treatment. Short-term plans can deny coverage or charge higher prices to people with pre-existing conditions, and they typically do not cover medical services related to a pre-existing condition.

Expanding short-term plans will let a parallel market for skimpy plans operate alongside the market for comprehensive individual health insurance, exposing consumers to new risks and raising premiums for people seeking comprehensive coverage, especially middle-income consumers with pre-existing conditions. The only good news: states have the authority to set their own limits and protections for short-term plans.

July 2018

July 10

The Centers for Medicare & Medicaid Services (CMS) slashes funding for consumer enrollment assistance and outreach through the navigator program to just \$10 million for the 34 states whose Affordable Care Act marketplaces are facilitated by the federal government. Combined with the large cut last year, navigator funding has now fallen more than 80 percent from its 2016 level.

In addition, the funding announcement opens the door to other significant changes that may leave consumers in some states without access to in-person, marketplace-funded assistance. In a particularly troubling change, it encourages navigators to promote limited-benefit coverage options, “such as association health plans, short-term, limited-duration insurance, and health reimbursement arrangements.” As we’ve explained, such plans can leave consumers exposed to significant financial risk if they become ill or injured, and the proliferation of such plans will result in higher costs for people needing comprehensive coverage.

Taken together, these actions and dramatic funding cuts will lead to fewer people getting the impartial assistance they need to enroll in and maintain coverage.

July 7

The Centers for Medicare & Medicaid Services (CMS) announces that Affordable Care Act risk adjustment transfers for 2017 may be delayed. Risk adjustment is a federal program that transfers revenues from insurers that enroll a healthier-than-average group of consumers to those that enroll a sicker-than-average group. By doing so, risk adjustment reduces the incentives for insurers to design plans to avoid attracting people with pre-existing conditions and other serious health needs.

CMS’s announcement has created uncertainty and confusion, with insurers unsure how long transfers might be delayed. This disruption is unnecessary: while CMS linked its decision to an adverse New Mexico federal district court ruling regarding the risk adjustment program, legal experts have concluded that CMS had – and continues to have – options to avoid disrupting or delaying transfers.

CMS’s decision does not implicate the 2019 risk adjustment program: in finalizing 2019 marketplace rules, CMS addressed the legal issues the New Mexico court case raised. Nonetheless, the Administration’s decision has raised concerns about whether it signals an intent to interfere with the risk adjustment program going forward. As such, the announcement adds to insurers’ concerns about future policy actions, concerns that are likely causing them to increase 2019 individual market premiums more than they otherwise would.

June 2018

June 19

The Labor Department finalizes rule changes expected to increase enrollment in association health plans (AHPs), coverage offered by trade and professional associations. Under the new rules, these associations could sell coverage to small businesses and self-employed individuals without meeting key Affordable Care Act (ACA) standards that would otherwise apply to plans sold to these customers. These include requirements to cover essential health benefits, prohibitions against charging higher premiums based on factors such as gender or occupation, and limits on charging higher premiums to older people.

Under the new rules, AHPs likely will be structured and marketed to attract younger and healthier people and firms with younger and healthier workforces, pulling them out of the ACA-compliant individual and small-group insurance markets and leaving older, sicker, and costlier risk pools behind. And because the AHP changes take effect starting this fall, the plans could result in 2019 premium increases and confuse consumers if they hit the market at the same time as the ACA open enrollment period.

June 7

The Department of Justice (DOJ) files a brief declining to defend the constitutionality of the Affordable Care Act (ACA) in an action brought by 20 states' attorneys general. In *Texas v. United States*, the states assert that the entire ACA must be struck down because the Supreme Court's 2012 decision in *National Federation of Independent Business v. Sebelius* upheld the coverage requirement under Congress's taxing power and the 2017 tax law zeroed out that tax penalty.

DOJ agrees with their argument but stops short of saying the entire law must be overturned. Rather, the Trump Administration asks the court to strike down two critical consumer protections: the provision that bars insurers from denying coverage to people with pre-existing conditions (guaranteed issue) and the prohibition on charging higher premiums to people because of their health status (community rating). The Administration claims, wrongly, that these provisions are inextricably linked to the mandate and must be thrown out if the mandate is found to be unconstitutional, ignoring Congress's decision in December to repeal the penalty but *not* other portions of the law.

Allowing insurers to again use pre-existing condition exclusions puts coverage at risk for 133 million people who could be charged more, denied coverage for certain diagnoses, or blocked from individual market coverage altogether because they have certain health conditions. Eliminating these provisions could also allow insurers to charge higher premiums to women, older people, and people in certain occupations. The attorneys general of 16 states and the District of Columbia have intervened in the case to defend the law.

April 2018

April 9

The Centers for Medicare & Medicaid Services (CMS) finalizes health care rule changes for the individual market that will weaken benefit standards, likely harming people with pre-existing conditions; raise new barriers for people who want to enroll in health coverage; and reduce accountability for insurers and transparency for consumers. Among the most significant provisions of the wide-ranging rule: it lets states and insurers scale back benefits, weakens risk adjustment, creates new enrollment barriers, reduces consumer access to assistance with eligibility and enrollment, reduces transparency of insurance premium setting, and weakens the standard that individual market insurers must spend at least 80 percent of premiums on medical care and improving health care quality.

February 2018

February 20

The Trump Administration proposes rules to expand the use of short-term health plans as an alternative to plans that meet more stringent standards under the Affordable Care Act. This would let a parallel market for skimpy plans operate alongside the market for comprehensive individual health insurance, exposing consumers to new risks and raising premiums for people seeking comprehensive coverage, especially middle-income consumers with pre-existing conditions. A rise in enrollment in short-term plans would also expose more consumers to coverage gaps and higher costs.

February 1

The Department of Health and Human Services (HHS) approves Indiana's Medicaid waiver, allowing it to impose a work requirement on Medicaid beneficiaries as part of its three-year waiver renewal. HHS extended Indiana's waiver, known as HIP, even though the state's own evaluation shows that the waiver, with its premiums and coverage lockouts, has made it harder for eligible Hoosiers to get coverage and care. Adding a work requirement will exacerbate HIP's shortcomings and cause additional beneficiaries to lose coverage.

January 2018

January 19

The Centers for Medicare & Medicaid Services (CMS) rescinds guidance it issued in April 2016 reaffirming Medicaid's "free choice of provider" provision, which allows beneficiaries to receive family planning services from all qualified providers of such services. CMS' reversal raises concerns that states will be allowed to restrict women covered by Medicaid from choosing certain health care providers like Planned Parenthood.

January 12

The Department of Health and Human Services approves Kentucky's Medicaid waiver, making Kentucky the first state to require Medicaid beneficiaries to work or participate in work-related activities as a condition of Medicaid eligibility. Kentucky's waiver includes other harmful provisions that will jeopardize coverage for hundreds of thousands low-income Kentuckians, such as premiums; six-month coverage lock-outs for failing to pay premiums, renew coverage on time, or report changes affecting eligibility; and delays in the effective date of coverage.

January 11

In a sharp reversal of long-standing federal policy, the Centers for Medicare & Medicaid Services (CMS) issues guidance allowing states to block some low-income adults from getting Medicaid coverage if they're not working or participating in work-related activities. CMS attempts to justify its new policy with the spurious claim that tying health insurance coverage to work will improve Medicaid beneficiaries' health and economic well-being, because people who work are healthier.

January 5

The Trump Administration proposes a new rule to dramatically broaden enrollment in association health plans (AHPs), coverage offered by trade and professional associations. If finalized, the rule would likely devastate small-group insurance markets and could hurt the individual insurance market, while putting people who enroll in AHPs at significant risk, particularly those who have a pre-existing medical condition or develop costly health needs.

The rule proposes allowing AHPs that enroll small businesses and self-employed people to be treated as large employers. This would exempt the AHPs from a number of consumer protections that otherwise apply in the small-group and individual insurance markets, including the Affordable Care Act's (ACA) requirement to cover essential health benefits, the prohibition against charging higher premiums based on factors like people's gender or occupation, and the limits on charging higher premiums to older people.

Because the rule would subject AHPs to substantially weaker standards than ACA-compliant plans in the small-group and individual markets, they could – and likely would – be structured and marketed to attract younger and healthier people, thus pulling them out of the ACA-compliant small-group market and leaving older, sicker, and costlier risk pools behind. Enrollees who need comprehensive coverage, or those with pre-existing conditions and with incomes too high to qualify for subsidies, would face rising premiums and large gaps in coverage.

December 2017

December 22

President Trump signs into law major tax legislation that repeals the ACA's individual mandate beginning in 2019. (The individual mandate requires most people to either have coverage or pay a penalty.) Without the mandate, fewer healthy people will sign up for coverage, increasing average health care costs in the individual market and causing premiums to rise by 10 percent, according to Congressional Budget Office (CBO) estimates.

CBO also estimates that mandate repeal will cause 13 million people to become uninsured, increasing the non-elderly uninsured rate by almost 50 percent. Because of these coverages losses, federal funding for marketplace subsidies and Medicaid will fall substantially, generating savings of \$314 billion, according to Joint Committee on Taxation estimates. The tax legislation uses these savings to help pay for making its corporate rate cuts permanent, providing tax cuts averaging nearly \$100,000 to the top 0.1 percent of households (those with incomes over \$3.1 million in 2017).

November 2017

November 1

The Trump Administration reduces email outreach for the marketplace open enrollment period. Although the HealthCare.gov database has email addresses for about 20 million consumers – those currently or previously enrolled or who have expressed interest in HealthCare.gov coverage – the Department of Health and Human Services (HHS) will only reach out to current enrollees.

When announcing its plan to slash its outreach budget by 90 percent, the Administration said that it would focus its open enrollment advertising and outreach activities on email, digital media, and text messaging. Yet HHS isn't emailing millions of people who need information about open enrollment and coverage.

October 2017

October 26

STAT News reports that Centers for Medicare & Medicaid Services (CMS) Administrator Seema Verma said during an appearance in Cleveland that CMS will give states an “unprecedented level of flexibility” in requesting waivers of federal Medicaid rules. This will likely undermine the intent of Medicaid waivers – namely, to enable states to test new approaches to providing care to beneficiaries – and instead end up harming beneficiaries.

Verma also criticized the Affordable Care Act's (ACA) expansion of Medicaid to millions of low-income adults, saying that “the policies that are in the Medicaid program are not designed for an able-bodied individual” and that the Trump Administration seeks to keep such individuals in the private insurance market, where they would not be “dependent on public assistance.”

Verma's statements raise concerns that the Administration may seek to use waivers to do what congressional Republicans' ACA repeal efforts failed to do: cut health coverage and benefits.

October 25

The Department of Health and Human Services' Office of Inspector General releases a report explaining how the Trump Administration's actions terminating marketplace outreach, which we described in our Sabotage Watch entry on January 26, 2017, led to \$1.1 million in unrecoverable costs.

October 12

President Trump signs an executive order that could destabilize the health insurance markets where millions of individuals and small businesses get their coverage and undermine protections for people with pre-existing health conditions. The order directs relevant agencies to consider ways for more people to buy health coverage that's exempt from many standards of the Affordable Care Act – such as the requirement that health plans cover a package of “essential health benefits” including maternity care and mental health treatment and the prohibition against charging people different premiums based on their health status.

The Trump Administration announces that it will stop making cost-sharing reduction (CSR) payments to insurers, which help lower deductibles and other out-of-pocket health care costs for roughly 6 million low- and moderate-income people. This action will raise costs for consumers and further disrupt health insurance markets. The Congressional Budget Office has estimated that ending the CSR payments will raise the number of insured people by 1 million in 2018, increase marketplace premiums by 20 percent, and cause insurers to pull out of the marketplace, leaving some consumers with no marketplace plans. And far from saving the federal government money, ending CSR payments will increase the federal deficit by \$194 billion over the next ten years.

October 6

The Trump Administration announces that it is allowing employers to opt out of covering contraception based on a moral or religious objection. Previous policy ensured that employees had access to birth control even if their employer had a religious objection, giving 62 million women access to birth control without co-payments. The change could threaten many women's access to essential contraceptive care. Moreover, the Trump Administration is taking an inappropriate short cut to put this change into effect immediately by releasing the change as an "interim final" rule, a process that is typically used when there is a public health crisis or other emergency need for a rule to take effect right away.

September 2017

September 27

The Department of Health and Human Services (HHS) responds to criticism of its decision to prohibit HHS regional staff from attending marketplace open enrollment events by lashing out with false claims that the ACA has failed and is harming people.

September 25

The Department of Health and Human Services (HHS) stops staff from its regional offices from participating in marketplace enrollment events. In past years, regional office staff played an important role in outreach and other events promoting enrollment, such as the education sessions the Mississippi Health Advocacy Program conducted throughout the state. HHS staff were scheduled to participate in next week's sessions as in past years, but with very little notice, they told event organizers they couldn't attend due to HHS restrictions on regional staff attending open enrollment events.

September 22

Centers for Medicare & Medicaid Services (CMS) informs navigator groups it could take up to 30 days to review and approve their revised proposals and budgets to reflect the major budget cuts it has made, and that the groups' funding won't be guaranteed until final CMS approval. The Ohio Association of Foodbanks — which had its award reduced to 71 percent of what it anticipated — announces it will no longer pursue navigator funding due to the limited funding levels and continued uncertainty, leaving a huge gap for Ohioans who need help enrolling in the marketplace.

Consumers won't be able to complete HealthCare.gov applications on all but one Sunday morning during the upcoming 45-day enrollment period due to system maintenance, CMS announces. While downtimes due to system maintenance have occurred in the past, regularly taking the system off line on Sunday mornings — especially during open enrollment — has never happened. Sunday mornings are popular times for assistance groups to help people enroll at community events, including faith-based gatherings.

September 20

The Trump Administration sends navigator groups their new target budgets for consumer outreach and enrollment assistance. Many groups face steep cuts and are being forced to make difficult decisions such as cutting services to hard-to-reach rural communities. Centers for Medicare & Medicaid Services (CMS) officials continue to point to poor performance in enrollment as justification for the cuts, though relying on enrollment numbers is a flawed measure of navigator effectiveness that doesn't reflect their full value. Furthermore, as groups received notification of their new award amounts, some groups that met or exceeded enrollment targets for the 2017 coverage year received deep cuts, calling into question how CMS used data sources and methods to make cuts.

September 8

Navigator groups that conduct consumer outreach and provide marketplace enrollment assistance haven't received federal funding for the next year, even though their budget year started September 1. The lack of clarity about navigator funding continues more than a week after the Trump Administration announced it would slash funding for the organizations. Without funding or assurances that funding — if and when it is finally awarded — can be used retroactively for expenses incurred starting September 1, navigator groups have been forced to make drastic cuts that would severely undermine their outreach efforts for the open enrollment period that starts on November 1. Some groups are already cutting highly trained staff whom they could lose permanently if they find other jobs. And groups have begun canceling outreach activities, which are especially critical in this year's shortened open enrollment period.

August 2017

August 31

Just two months before the start of open enrollment, the Trump Administration announces it will slash funding for marketplace outreach (by at least 90 percent) and consumer enrollment assistance through the navigator programs (by about 40 percent). Without a robust awareness campaign, many people will be unaware of the availability of affordable coverage options and will remain uninsured. Bipartisan efforts to stabilize the marketplaces are developing, but the Administration's cuts will make that goal far more challenging.

August 15

Beginning in 2013, the Obama Administration successfully engaged a diverse set of partners to spread the word about coverage available in the marketplaces and Medicaid. The Administration enlisted "gig economy" companies like Lyft and Uber, faith-based organizations like the United Methodist Church, and medical groups like the American Congress of Obstetricians and Gynecologists in efforts to raise awareness and boost enrollment. Former HHS officials have described these partnerships as key to advancing enrollment especially among diverse, young, and healthy people. But this year, there's no sign that the Trump Administration has reached out to these groups. Ending these partnerships will likely depress enrollment in the coming open enrollment period.

July 2017

July 29

After Senate Republicans fail to pass a bill to repeal or replace the ACA, President Trump takes to Twitter to threaten that he will stop making CSR payments to insurers. Trump falsely calls these payments a "bailout." Actually, the ACA requires the federal government to make these payments to compensate insurers for reducing deductibles and copayments for low- and moderate-income marketplace enrollees. Ending the payments would hike premiums in the individual market for many consumers, raise federal marketplace costs, and likely cause some insurers to withdraw from the marketplaces. The renewed threat comes just two weeks before the deadline for insurers to finalize their premium rates for 2018 marketplace plans.

July 20

The Trump Administration ends contracts with two private firms to provide in-person assistance in states using HealthCare.gov for marketplace enrollment. Since the first open enrollment period in 2013, Cognosante LLC and CSRA Inc. have provided one-on-one assistance for people enrolling in marketplace plans and applying for subsidies. The loss of this assistance is especially likely to affect enrollment for 2018 coverage because the Administration has already shortened the open enrollment period to six weeks.

July 20

The Department of Health and Human Services (HHS) continues its public relations campaign attacking the ACA. HHS has released 23 videos featuring individuals explaining how the ACA has harmed them. HHS has also used its twitter account to amplify anti-ACA messages and removed website content promoting the ACA, including the popular ACA provision enabling young people to stay on their parents' plans until they turn 26.

June 2017

June 8

Health and Human Services Secretary Tom Price refuses to say if the Trump Administration will fund CSR payments in 2018 during questioning at a Senate Budget Committee hearing. Senators note that lack of certainty about the payments is causing insurers to submit higher premiums and even to stop offering coverage.

June 6

Anthem Inc. announces it will exit Ohio's marketplace, pointing to the uncertainty around whether CSRs would be paid and an "increasing lack of overall predictability (that) simply does not provide a sustainable path forward to provide affordable plan choices for consumers." The move leaves at least 18 Ohio counties with no marketplace plans. Little more than a month before, Anthem executives noted the marketplace business was going well and "doing markedly better than it did last year" but that its participation in the marketplaces would hinge on certainty about the CSR payments.

May 2017

May 23: Trump budget proposes large cuts in marketplace funding, hitting consumer outreach and assistance hard.

President Trump's budget requests 21 percent less funding to administer the marketplace in 2018 than President Obama requested for 2017. More than half the Trump budget's proposed cuts fall in two categories of marketplace funding: "consumer information and outreach" and "eligibility and enrollment." These budget items fund the marketplace call center that helps consumers enroll in marketplace coverage, in-person assistance by navigators and assisters, and outreach and marketing to make sure consumers know about the health insurance options available to them. They also fund eligibility determination activities to make sure that eligible consumers get subsidies (and the appropriate subsidy amounts) and ineligible consumers do not. Moreover, the Trump budget would cut "payment and financial management" — the spending category that covers basic program operations, like advance payment of subsidies and work with insurers — by more than half relative to the 2017 budget request. (While actual marketplace funding levels for 2017 are not available, the Obama budget request appears to have been largely or entirely funded in 2017 appropriations legislation.) Were these cuts to be enacted as part of 2018 annual appropriations, they would likely result in significantly lower enrollment during the upcoming open enrollment period for next year.

Marketplace Budget Request, \$Millions

	2017 (Obama Budget)	2018 (Trump Budget)	\$ Cut	% Cut
Health Plan Benefit, Rate Review, Management, and Oversight	51	31	-20	-39%
Payment and Financial Management	71	33	-38	-54%
Eligibility and Enrollment	456	322	-134	-29%
Consumer Information and Outreach	744	574	-171	-23%
Information Technology	657	636	-21	-3%
Other	166	99	-67	-41%
Total	2,145	1,694	-451	-21%

May 22

The Trump Administration asks for another 90-day delay in the CSR court case, which would allow the payments to continue temporarily but means insurers will have to finalize marketplace rates in August without any guarantee that these payments will continue to be made. The request comes days after an Oval Office meeting in which President Trump reportedly told aides he wants to end the CSR payments. The Administration has committed to making the payments only through May; later in the week, OMB Director Mulvaney reiterated that the Administration has not decided whether to make the June CSR payments.

May 12

As the 2018 rate-filing season gets underway, initial filings – along with statements from insurers and state regulators – show that sabotage is taking a toll. Premiums are higher than they would otherwise be, and insurers cite uncertainty about the individual mandate, whether they will receive cost-sharing reduction payments, and potential changes to federal rules as contributing factors. “Uncertainty breeds higher costs,” said Martin Hickey, CEO of New Mexico Health Connections. See here for more comments from insurers and state officials on the challenges they are facing.

Meanwhile, fresh threats that President Trump may stop CSR payments to insurers surface upon publication of this interview with *The Economist*. Trump says, “Plus we’re subsidizing it and we don’t have to subsidize it. You know if I ever stop wanting to pay the subsidies, which I will.” He indicates that whether Congress passes health care legislation would impact his decision, saying, “if the bill didn’t pass the Republicans would have let me down. And then I’d have to decide what to do because I want people to have health care.”

May 4

House Republicans vote to add more than 20 million to the ranks of the uninsured, eliminate the individual mandate, slash subsidies in the marketplaces, and end federal standards for benefits and cost-sharing in the private insurance market. The bill faces an uncertain future in the Senate. But the mere possibility of enactment is likely to cause insurers to propose higher premiums than they otherwise would or discourage them from offering plans in the individual market at all, because the House bill would sharply increase per-enrollee costs and reduce individual market enrollment for 2018.

May 2

Just weeks before CSR payments are due to insurers for May and as insurers are beginning to submit preliminary individual market rate filings, Office of Management and Budget (OMB) Director Mick Mulvaney says the Administration hasn’t decided whether to pay them.

May 1

The Trump Administration and congressional Republican leaders fail to include a measure guaranteeing the continued payment of the ACA’s cost-sharing reductions (CSRs) in the fiscal year 2017 spending bill, endangering coverage for millions of people and risking premium increases and marketplace disruption.

April 2017

April 13

The Trump Administration finalizes its rule for the individual health insurance market that will raise consumers’ deductibles and other out-of-pocket costs, reduce premium tax credits that help millions of people buy insurance, and make it harder for people to enroll in coverage. While the Administration claims the changes are needed to stabilize the insurance market, many of them will reduce market stability by shrinking enrollment and making the pool of people with coverage sicker, on average. What’s more, the changes do nothing to address the latest threats roiling insurance markets: comments from President Trump that he may withhold cost-sharing reduction payments and ongoing efforts by Republicans to repeal the ACA.

April 12: Trump threatens to withhold ACA cost-sharing reduction payments to insurers

President Trump threatens to withhold ACA cost-sharing reduction payments to insurers. His comments could on their own cause insurers to balk at offering marketplace plans or to raise their premiums. If he actually followed through, the fallout would be even worse.

Trump’s remarks heighten uncertainty for insurers at the very moment they’re making premium and participation decisions for next year. The cost-sharing reduction payments, which reduce deductibles and other cost-sharing charges for low-income people enrolled in silver-level marketplace plans, have been the subject of a lawsuit by House Republicans since 2014. If the federal government stopped these payments, the average premium for a silver plan would have to rise 19 percent to compensate, the Kaiser Family Foundation estimates. Equally important, a decision to stop the payments – or even prolonged uncertainty around these payments – could convince insurers that the Administration will keep taking actions that sabotage the individual market and lead them to stop offering plans altogether.

The President suggested that withholding the payments would force Democrats to negotiate with him on health care legislation, after House Republicans failed to advance their health care bill in March. That amounts to holding millions of people's health care hostage in an attempt to push through legislation that would take away health coverage from millions more people.

March 2017

March 28

After House Republicans fail to advance a bill repealing the Affordable Care Act, Administration officials and congressional Republican leaders continue to discuss bringing that or a similar bill to the floor.

Ongoing talk about the possibility of legislative action only fans insurers' uncertainty and could cause them to increase premiums or pull back their participation in states' individual markets in 2018 – even if the House Republican bill never becomes law.

March 14

The Trump Administration sends a letter to governors signaling it is open to considering precedent-setting Medicaid waiver proposals that would make it harder for Medicaid beneficiaries to get affordable care and would potentially increase the number of people who are uninsured.

February 2017

February 15th

Administration's first health care rule is billed as market stabilization, but would discourage enrollment and undermine market stability by making plans less affordable.

February 14th: IRS scraps its plan to tighten reporting for the individual mandate

Building on the confusion created by the President's January 20th executive order, the Administration announces a new step to undermine stability in the marketplace by preventing the IRS from using new tools to enforce the individual responsibility provision of the ACA – a crucial part of keeping a healthier pool and keeping premiums affordable. While having coverage is still the law – and the IRS will continue enforcing the provision in the same way it did the previous two years – the announcement creates added uncertainty that could damage the marketplaces going forward.

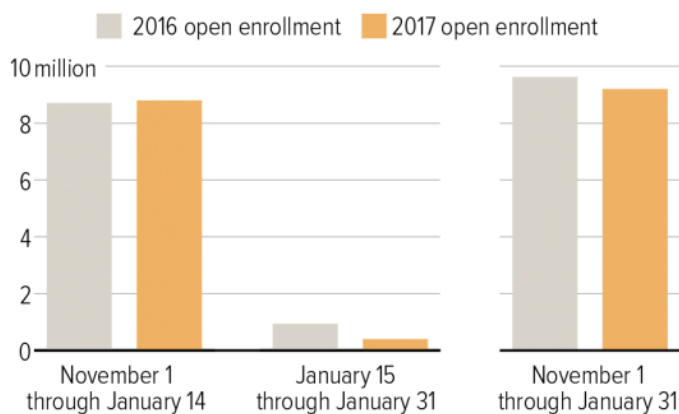
January 2017

January 31st

After running ahead of 2016 enrollment totals through mid-January, final 2017 HealthCare.gov plan selections come in slightly below 2016.

2017 Marketplace Enrollment Outperformed 2016 Until Mid-January

HealthCare.gov enrollment



Source: Healthcare.gov enrollment reports

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January 26th

The Administration announces that it will stop planned ads for the final week of open enrollment for marketplace health coverage.

January 20th: Trump issues anti-ACA executive order

Shortly after President Trump’s inauguration, he issues an executive order directing federal agencies to use their administrative powers begin dismantling the Affordable Care Act “to the maximum extent permitted by law.” The order instructs agencies, for example, to do what they can to grant exemptions or delay implementation of ACA provisions that impose a tax, fee, or other costs and to encourage development of a “free and open market” in health care services among states, while Congress works to pass repeal legislation.

June 11, 2019

Reducing Cost-of-Living Adjustment Would Make Poverty Line a Less Accurate Measure of Basic Needs

By Arloc Sherman and Paul N. Van de Water¹

The Trump Administration is publicly weighing plans to gradually lower the official poverty line by applying a smaller cost-of-living adjustment each year.² Doing so would be unjustified for several reasons:

- **An alternative inflation index may be less accurate for those with low incomes.** Recent evidence casts doubt on claims that the current method for adjusting the poverty line for inflation each year — which is based on the consumer price index for all urban consumers (CPI-U) — overstates inflation for the poor. Prices have been rising *faster* than the CPI-U does for the broad categories of goods and services that dominate poorer households' spending. The poorest fifth of households devote twice as large a share of spending to rent as the typical household, for example, and the cost of rent rose 31 percent from 2008 to 2018, compared to 17 percent for the overall CPI-U. In addition, recent studies find that low-income households may face more rapidly rising prices than high-income households even for the same types of goods, possibly because low-income households have fewer choices about where and how to shop.
- **The official poverty line is already too low.** The high rates of hardship and financial insecurity among both poor and near-poor families suggest that hardships are likely common among families whom the Administration's plan would define as *no longer poor* — namely, those who now are just below the poverty line. In addition, official estimates of minimum living costs consistently exceed the poverty line by a wide margin; just two parts of a family's budget — rent for a modest two-bedroom apartment in a medium-cost metropolitan area as determined by the U.S. Department of Housing and Urban Development (HUD), and the cost of a minimum nutritionally adequate diet as estimated by the U.S. Department of Agriculture (USDA) — would cost \$21,000 in 2018, or 83 percent of the poverty threshold for a two-adult family. Surveys also show that most Americans would set the poverty line higher than the official poverty line.

¹ The authors thank Jennifer Beltrán for excellent research assistance.

² "Request for Comment on the Consumer Inflation Measures Produced by Federal Statistical Agencies," *Federal Register*, May 7, 2019, <https://www.federalregister.gov/documents/2019/05/07/2019-09106/request-for-comment-on-the-consumer-inflation-measures-produced-by-federal-statistical-agencies>.

- **Annual updates of the official poverty line should fully reflect changes in the costs of meeting basic needs.** Price indexes are designed to capture price growth but not the cost of “new necessities” for families, such as the growing need for child care as more women enter the paid work force. The poverty line should also capture rising living standards, as items that were once unavailable — such as a computer and internet service — become minimum requirements of acceptable living (and increasingly important for finding and retaining a job). The Administration’s plan arbitrarily focuses on one questionable technical change that would lower the poverty line while ignoring the ample evidence that incomes at the poverty line are generally too low to make ends meet and have failed to keep up with basic needs.

Alternative Inflation Index May Be Less Accurate for Those with Low Incomes

The Administration appears to believe that the CPI-U, which the Census Bureau now uses to update the federal poverty line each year, is not as accurate a measure of inflation as alternative (and slower-rising) indices such as the “chained CPI.” Using the chained CPI instead of the CPI-U to adjust the poverty threshold would slow its growth by about 0.2 percentage points a year. Many analysts may agree that the chained CPI is a more accurate gauge of price changes *across the whole economy*. But it is not at all clear that it would be more accurate *for low-income households*.

There are two reasons why a slower-rising index may understate price increases for the poor. First, prices have been rising faster than the CPI-U for the broad categories of goods and services that dominate poorer households’ spending and constitute a larger share of *low-income* households’ budgets than of the *average* household’s budget.

- Low-income households spend a larger share of their income on housing — especially rent, which has been rising faster than the overall CPI-U in recent years. The cost of rent rose 31 percent from 2008 to 2018, much faster than the overall CPI-U (17 percent). The poorest fifth of households dedicate 40 percent of their spending to housing (including shelter, fuel, utilities, furnishings, and operations), compared with 33 percent for all households. Spending on rent is even more concentrated among the poor: the poorest fifth dedicate 16 percent of their spending to rent, compared with 7 percent for all households, according to Bureau of Labor Statistics (BLS) data for 2017.³
- BLS has created experimental price indices that are focused on “basic necessities.” These indices show that the price of a market basket consisting only of shelter, groceries, clothing, energy, and medical care — items that together make up a disproportionately large share of poor households’ spending — rose at an average rate of 2.99 percent per year from 1982 to 2014, or 0.21 percentage points faster than a market basket reflecting all households’ consumer purchases (2.78 percent).⁴
- The Federal Reserve Bank of Chicago compiles price indexes designed to calculate how inflation affects specific socio-economic and demographic groups. These indices show that

³ Price changes for housing made up 42 percent of the overall CPI-U in December 2018; rent of one’s primary residence made up 8 percent.

⁴ Jonathan Church, “The cost of ‘basic necessities’ has risen slightly more than inflation over the last 30 years,” *Beyond the Numbers: Prices and Spending*, Vol. 4, No. 10, June 2015, <https://www.bls.gov/opub/btn/volume-4/the-cost-of-basic-necessities-has-risen-slightly-more-than-inflation-over-the-last-30-years.htm>.

prices for the average bundle of goods and services purchased by *households in poverty* rose 0.18 percentage points a year faster from December 2003 to December 2013 than prices for the average bundle of items purchased by *all income groups*.⁵

Second, other recent studies find that low-income households may face more rapidly rising prices than average and upper-income households even for the same (or very similar) types of goods. Low-income households may have fewer retail outlets in their neighborhood, lack access to convenient transportation, be less able to buy cheaper items in bulk, or lack internet service at home that would let them take shop cheaply online, for example. Or, in other ways, they may be less able to change their consumption patterns when relative prices change.

- Researchers at the University of Chicago and the Federal Reserve Bank of Chicago, using detailed product bar-code data matched from stores and shoppers' homes, find "striking" differences in inflation rates across income groups for the subset of food and other retail goods in their sample. From 2004 to 2013, prices rose by 33 percent for the goods and services bought by households making less than \$20,000, but by 25 percent for households with incomes over \$100,000.⁶
- Researchers at the Federal Reserve Bank of Minneapolis and the University of California San Diego have developed income-specific price indexes using similar detailed data on household retail purchases. They find that, from 2004 to 2010, retail prices rose 0.6 percentage points faster each year for the purchases made by the poorest fourth of the population than for the purchases of the richest fourth. "[H]igh-income households are better able to pay lower prices for the same category of goods by shifting their expenditures to less expensive brands" during economic downturns, the researchers noted. This strategy is less available to low-income households if they have been using less expensive brands all along.⁷
- Economists at the University of California Berkeley identify another reason low-income households may experience higher inflation: larger, more productive firms have responded to rising income inequality by catering to wealthier households, offering them lower costs on innovative high-end goods to gain their business.⁸
- London School of Economics economist Xavier Jaravel draws a similar conclusion. Using detailed product-level data on retail purchases, he finds that annual inflation for these goods

⁵ Federal Reserve Bank of Chicago, "IBEX Inflation," June 23, 2015, <https://www.chicagofed.org/research/data/ibex/ibex-inflation>, and CBPP calculations. Calculations reflect households ranked by size-adjusted income and inflation rates compounded over time.

⁶ Greg Kaplan and Sam Schulhofer-Wohl, "Inflation at the Household Level," *Journal of Monetary Economics*, 2017, https://gregkaplan.uchicago.edu/sites/gregkaplan.uchicago.edu/files/uploads/kaplan_schulhoferwohl_jme_2017.pdf. Figures are for the third quarter of each year. The differences between lower- and higher-income groups in other quarters are similar or even larger.

⁷ David Argente and Munseob Lee, "Cost of Living Inequality during the Great Recession," Kilts Center for Marketing at University of Chicago Booth School of Business, Nielsen datasets Joint Paper Series, March 1, 2017, <https://ssrn.com/abstract=2567357>.

⁸ Benjamin Faber and Thibault Fally, "Firm Heterogeneity in Consumption Baskets: Evidence from Home and Store Scanner Data," National Bureau of Economic Research Working Paper No. 23101, August 2017, <https://www.nber.org/papers/w23101>.

from 2004 to 2013 was 0.65 percentage points higher for households earning below \$30,000 than for those making \$100,000 or more. He finds evidence that this occurred in large part because “(i) the relative demand for products consumed by high-income households increased because of growth and rising inequality; (ii) in response, firms introduced more new products catering to such households; (iii) as a result, the prices of continuing [i.e., older] products in these market segments fell due to increased competitive pressure.”⁹

- Recent preliminary work at BLS examining price changes from 2014 to 2017 finds some evidence that, within a given product category, prices rose faster for lower-cost items than for higher-cost items, a difference that could raise inflation for low-income households by as much as 0.7 percentage points a year. Moreover, the general link between low income and inflation rates is “consistent with prior BLS research suggesting the poor tend to face higher inflation rates compared to the rich,” the BLS analysts noted.¹⁰
- The chained CPI, which the Administration is considering as an alternative to the CPI-U, rises more slowly than the CPI-U because it accounts for consumers’ ability to partly offset the effect of changes in relative prices by switching between types of products. Yet in one of the only studies to directly ask whether this holds *for low-income households*, BLS economists in 1996 found evidence that poorer households may be less — perhaps much less — able to change their consumption patterns, which casts further doubt on the validity of using the chained CPI to track the living costs of the poor.¹¹

Although not definitive, these two types of studies — those comparing inflation rates across different types of goods and those comparing inflation rates for similar types of goods across different income groups — suggest that low-income households experience higher inflation than average or high-income households.¹² If so, indexing the poverty threshold by an inflation measure that grows less rapidly, such as the chained CPI, could make the poverty threshold *less* accurate, not more so. At the very least, more data collection and research are needed before any change is made.

⁹ Xavier Jaravel, “The Unequal Gains from Product Innovations: Evidence from the US Retail Sector,” *The Quarterly Journal of Economics*, Vol. 134, Issue 2, May 2019, pp. 715–783, <https://academic.oup.com/qje/article-abstract/134/2/715/5230867>. An earlier version of this paper is available at <https://equitablegrowth.org/working-papers/unequal-gains-from-product-innovations/>.

¹⁰ Robert Cage, Joshua Klick, and William Johnson, “Population Subgroup Price Indexes: Evidence of Heterogeneity or Measurement Error?” working draft, Bureau of Labor Statistics Office of Prices and Living Conditions, https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.22/2018/United_States.pdf.

¹¹ The study examined the extent to which the CPI-U might overstate inflation due to “substitution bias” — that is, to the index not taking account of consumers’ changes in their spending patterns in response to relative changes in prices. Over the years 1984–1994, the study estimated that substitution bias caused a price index like the CPI-U to overstate inflation by a cumulative total of 1.99 percent for consumers overall. For poor consumers, substitution bias was quite similar (2.01 percent), slightly less (1.75 percent), or considerably less (0.25 percent), depending on how poor households were defined, although it was not possible to determine if these differences were statistically significant. Thesia I. Garner, David S. Johnson, and Mary F. Kokosi, “An Experimental Consumer Price Index for the Poor,” *Monthly Labor Review*, September 1996, <https://www.bls.gov/opub/mlr/1996/09/art5full.pdf>.

¹² For similar reasons, a 1995 National Academy of Sciences expert panel cautioned that, over the long run, the CPI-U could be a misleading guide to price changes for low-income families: “if the relative prices of necessities and luxuries change over time, as has happened in some periods in the past, the use of the CPI will not give an accurate picture of real adjustments for poor people.”

Official Poverty Line Is Already Too Low

Adopting an inflation index that may be less accurate for low-income households would be especially unwise given that evidence suggests, and many experts and the public tend to agree, that the poverty line is already too low.

One sign of how modest a living standard the poverty line sets is that hardship and insecurity are widespread among families modestly above the poverty line, as well as those in poverty. This suggests that hardships likely are common among the families whom the Administration's plan would define as no longer poor, namely, those who now are just below the poverty line.

- Over 60 percent of non-elderly adults with income between 100 and 200 percent of the poverty line reported one or more material hardships such as food insecurity, missed payments for utility bills or rent or mortgage, or problems paying family medical bills, a 2017 Urban Institute survey found — not significantly different than for those in poverty.¹³
- In the same survey, 51 percent of these near-poor adults experienced one or more forms of financial insecurity, such as lacking \$400 to pay an unexpected expense — almost as many as among those in poverty (about 58 percent). Some indicators of financial insecurity, such as being contacted by a bill collector, were at least as common among near-poor adults as poor adults.¹⁴
- Some 29 percent of households with children with income between 100 percent and 130 percent of the poverty line couldn't consistently afford adequate food in 2017, not far below the 40 percent figure for those below the poverty line, Agriculture Department data show.¹⁵

The difficulty of making ends meet on income near the poverty line becomes clear when one adds up the cost of basic needs. Various experts have estimated minimum living costs (leaving no room for eating out, retirement saving, entertainment, or other “discretionary” items such as children's school trips or birthday parties), and the results consistently exceed the poverty line by a wide margin. For example:

- Just two parts of a family's budget — rent for a modest two-bedroom apartment in a medium-cost metropolitan area as estimated by HUD (known as the “fair market rent”)¹⁶ and the cost

¹³ Michael Karpman, Stephen Zuckerman, and Dulce Gonzalez, “Material Hardship among Nonelderly Adults and Their Families in 2017,” Urban Institute, 2018, https://www.urban.org/sites/default/files/publication/98918/material_hardship_among_nonelderly_adults_and_their_families_in_2017.pdf.

¹⁴ Steven Brown and Breno Braga, “Financial Distress among American Families: Evidence from the Well-Being and Basic Needs Survey,” Urban Institute, February 19, 2019, <https://www.urban.org/research/publication/financial-distress-among-american-families-evidence-well-being-and-basic-needs-survey/view/full-report>.

¹⁵ Alisha Coleman-Jensen *et al.*, “Household Food Security in the United States in 2017,” Department of Agriculture, 2018, and CBPP calculations.

¹⁶ \$1,109 a month, which is HUD's “fair market rent” for 2018. CBPP analysis of HUD Fair Market Rent data at <https://www.huduser.gov/portal/datasets/fmr.html#2018>.

of a minimum nutritionally adequate diet as estimated by USDA¹⁷ — would cost over \$21,000 annually, or 83 percent of the poverty threshold for a two-adult family (\$25,465 in 2018). This would leave little room for child care, commuting costs, clothing, diapers, laundry, or other necessities.

- Even in low-cost areas, estimates of the cost of necessities exceed the poverty line. A 2005 report commissioned by the West Virginia Governor’s Workforce Investment Division concluded that “the official poverty line is only 67 percent of the minimum amount necessary to meet family needs” without government assistance for a parent with two children in that state’s least expensive county.¹⁸
- Nationwide, the income that an average single parent with two children required to meet basic needs in 2018 without government assistance was three times the official poverty line for such a family, according to the Living Wage Calculator developed by an economic geographer at the Massachusetts Institute of Technology (\$61,482 versus \$20,231).¹⁹

Other experts have concluded that the official poverty line is too low. A 1995 expert panel of the National Academy of Sciences (NAS) concluded that the official poverty line — designed in the 1960s based on 1955 spending patterns, as explained below — was out of date. The panel proposed raising the poverty thresholds²⁰ and making other changes to the poverty measure. After years of careful study, the federal government created a measure of poverty known as the Supplemental Poverty Measure (SPM) that largely reflects the NAS recommendations. The SPM poverty line is higher than the official poverty threshold for most household types and most people,²¹ and the overall SPM poverty rate is slightly higher than the official poverty rate.

Moreover, public opinion surveys indicate that most Americans would set the poverty threshold higher than the official poverty line.

- The median American considers the poverty line to be \$30,000 for a family of two adults and two children, according to a 2016 survey by the American Enterprise Institute and *Los Angeles*

¹⁷ \$642 a month, which is the cost of USDA’s Thrifty Food Plan for a married couple with children ages 6-8 and 9-11 in June 2018. Thrifty Food Plan, <https://fns-prod.azureedge.net/sites/default/files/CostofFoodJun2018.pdf>.

¹⁸ Governor’s Workforce Investment Division and Center for Women’s Welfare, *The Self-Sufficiency Standard for West Virginia*, 2005, <http://selfsufficiencystandard.org/sites/default/files/selfsuff/docs/WV2005.pdf>.

¹⁹ Carey Anne Nadeau and Amy Glassmeier, “Calculation of the Living Wage,” January 24, 2019, <http://livingwage.mit.edu/articles/37-new-data-up-calculation-of-the-living-wage>.

²⁰ *Measuring Poverty: A New Approach*, Washington, DC: The National Academies Press, 1995. The panel recommended raising the poverty line between 14 percent and 33 percent compared with the “comparable current level.”

²¹ The SPM poverty threshold averages 12 percent higher than the official poverty line (not counting the relatively small number of cases where the SPM defines the family differently than the official poverty measure) and is above the official poverty-line threshold for two-thirds of people. Source: unpublished CBPP analysis of the Census Bureau’s public use files for the March 2018 Current Population Survey and 2017 SPM.

Times.²² This is 24 percent higher than the official poverty threshold for such a family (\$24,339 in 2016).

- Poor and non-poor Americans largely agree on minimum living requirements. They had similar responses (\$29,000 and \$30,000, respectively) to the 2016 survey, which asked, “What do you think is the highest annual income [a] family of four can have and still be considered poor by the federal government?”
- A 1989 poll asked, “What amount of weekly income would you use as a poverty line for a family of four (husband, wife and two children) in this community?” This appears to be the only national poll to ask the question in this way, with a focus on what the poverty line *should* be. The public’s average response was nearly one-fourth higher than the official poverty line.²³

An even higher poverty line would result if the methods used to create the official poverty measure in the 1960s were repeated today. As the 1995 NAS expert panel on the poverty measure noted, “If the original approach were used to develop the poverty thresholds today, their value would be significantly higher.”

Analysts at BLS and the Census Bureau conducted such a calculation in 2008. The original poverty threshold was calculated by multiplying the cost of a minimum diet by three to reflect the fact that the average family spent roughly one-third of its income on food, according to the 1955 Household Food Consumption Survey. The BLS and Census analysts found that the average ratio of food spending to total income had since risen from 1:3 to between 1:6.2 and 1:9.8, depending on the approach used. The least generous of the poverty thresholds they calculated using these updated ratios was more than one and one-half times the current poverty threshold.²⁴

Updates of Official Poverty Line Should Fully Reflect the Costs of Meeting Basic Needs

Price indexes are not intended to fully capture all changes in families’ needs.²⁵ They aim to capture price growth, but not the cost of adding “new necessities” to a family’s budget in the first place. For example, rising employment rates for women at all income levels have resulted not only in new child care costs for many families but also in higher spending for prepared foods or meals outside the home by reducing working families’ time to prepare meals. By design, price indexes do not fully

²² Robert Doar, Karlyn Bowman, and Eleanor O’Neil, “2016 Poverty Survey: Attitudes Toward the Poor, Poverty, and Welfare in the United States,” American Enterprise Institute and *Los Angeles Times*, August 18, 2016, <http://www.aei.org/publication/2016-poverty-survey/>.

²³ The weekly response, multiplied by 52 weeks and inflated to 1989 dollars, was \$15,646 a year, or 23 percent above the comparable poverty line (\$12,675). More frequently, pollsters have asked Americans a related question about the minimum income needed to “get along” in their communities; the response to this question in 1989 was even higher: \$21,788 annualized. See Denton R. Vaughan, “Exploring the Views of the Public to Set Income Poverty Thresholds and Adjust Them Over Time,” updated February 2004, <https://www.census.gov/content/dam/Census/library/working-papers/2004/demo/wkppov20-cen.pdf>.

²⁴ Thesia I. Garner and Kathleen S. Short, “Creating a Consistent Poverty Measure Over Time Using NAS Procedures: 1996-2005,” BLS Working Paper 417, April 2008, <https://www.bls.gov/osmr/pdf/ec080030.pdf>.

²⁵ “Consumer Price Index Frequently Asked Questions,” Bureau of Labor Statistics, question 9, https://www.bls.gov/cpi/questions-and-answers.htm#Question_9 .

respond to the need to purchase more child care or prepared food, but these “new necessities” impose a cost on the growing number of two-earner and single-working-parent families and thus are appropriate to consider when updating or rethinking a poverty line.²⁶ This casts further doubt on the contention that the poverty line, as adjusted by the CPI-U, has risen too much.

In the long run, a poverty line should also capture rising living standards. Items such as plumbing or electricity that were once unavailable have become minimum requirements of acceptable living. More recently, access to a computer and internet service have rapidly become necessities for finding a job, completing schoolwork, or shopping less expensively online.

Those responsible for developing the official poverty measure recognized that family needs and living standards would likely rise slightly faster than inflation over time and assumed that the official poverty line would rise faster, too. Economist Mollie Orshansky, who in the 1960s developed what became the official poverty measure, wrote in 1963 that “the standard of adequacy changes with time.” Orshansky’s supervisor at the Social Security Administration, Ida Merriam, commented in 1967, “obviously today’s [official poverty] measure, even if corrected year by year for changes in the price level — the purchasing power of money — should not be acceptable twenty, ten or perhaps even five years hence.”

In a similar vein, Republican members of the Joint Economic Committee, commenting on the new poverty line in 1964, wrote, “In America, as our standard of living rises, so does our idea of what is substandard.”²⁷

Most Americans apparently agree. Over time, public opinion about the smallest amount of money needed to get along in their community has risen about as fast or faster than the official CPI, according to Gallup polling data from 1967 to 2007.²⁸ These poll-based levels thus have risen faster than the slower-growing inflation measures the Administration has cited as candidates for adjusting the poverty line each year, such as the chained-CPI and the Personal Consumption Expenditures (PCE) deflator.

Other governmental measures of living standards have long tended to rise slightly faster than the CPI-U. For example, family budgets developed from 1947 to 1959 by the Labor Department and designed to capture a “modest but adequate” living standard rose 37 percent more than the CPI-U over that period.²⁹

²⁶ Price indices will capture rising prices for each hour of child care or each package of prepared food, but not the rising impact on the family’s needs if they must purchase a greater *quantity* of child care or prepared food whether or not the price per unit rises.

²⁷ Gordon M. Fisher, “Is There Such a Thing as an Absolute Poverty Line Over Time? Evidence from the United States, Britain, Canada, and Australia on the Income Elasticity of the Poverty Line,” August 1995, <https://www.census.gov/content/dam/Census/library/working-papers/1995/demo/fisher3.pdf>.

²⁸ From 1967 to 1987, the “get along” level rose about as much as the CPI-U (it rose 0.9 percent more). From 1987 to 2007, it rose about 3.9 percent faster. Jeffrey M. Jones, “Public: Family of Four Needs to Earn Average of \$52,000 to Get By,” Gallup News Service, February 9, 2007, <https://news.gallup.com/poll/26467/public-family-four-needs-earn-average-52000-get.aspx>; and CBPP calculations.

²⁹ David S. Johnson, John M. Rogers, and Lucilla Tan, “A Century of Family Budgets in the United States,” *Monthly Labor Review*, May 2001, <https://www.bls.gov/opub/mlr/2001/05/art3full.pdf>.

Similarly, the 1995 National Academy of Sciences panel on redesigning the poverty measure expressly designed its poverty line to rise slightly faster than the CPI-U to reflect increases in typical households' consumption of necessities. The panel observed that families' child care needs had risen due to women's rising employment and added that it expected its proposed poverty threshold would evolve further as technology and society evolved. For example, the threshold would likely incorporate items such as computing technology once these became viewed as necessities and were incorporated into government data on household housing and utility expenses.

The Trump Administration's approach of making only one, narrow technical change to lower the official poverty line, while ignoring the very strong evidence that the poverty line is rising too slowly to keep up with changing basic needs, is one-sided.

Conclusion

Efforts to lower the poverty threshold over time by adopting a slower-growing inflation measure are not justified by the evidence. Indeed, the lower inflation measures that the Trump Administration has floated may track the prices that poor households pay *less* accurately than the current measure does, not more accurately. They also would likely make an already low poverty line increasingly inadequate to raise a family.

At the very least, no change should be made to the indexing of the poverty threshold without collecting better price data for low-income households and undertaking much more careful and balanced study of the analytical issues involved, preferably by an external group such as the National Academy of Sciences.



JUNE 2019

Framing a Conversation on Improving Services for Medi-Cal Patients 2019 ITUP Regional Workgroups Discuss Care Coordination

PURPOSE OF THIS GUIDE

Over the next six months, ITUP will hold its annual regional workgroups across ten regions in the state, including densely populated urban centers and remote rural areas, North and South, well-resourced and underserved communities. ITUP workgroups bring together a diverse range of local health care leaders, including county staff, clinics, hospitals, medical providers, health plans, community-based organizations and advocates.

In 2019, ITUP workgroups will take stock of the progress and remaining challenges to achieving universal coverage. In addition, this year ITUP will focus on improving access and services for Medi-Cal recipients through care coordination, case management and care management across delivery systems.

This discussion guide provides general background to support the 2019 regional workgroup conversations around care coordination challenges, best practices, and policy recommendations.

Workgroup Discussion Questions

- 1. What are the barriers and challenges to effectively coordinating health care and related services for Medi-Cal recipients in the region? What are some of the largest failures of care coordination in Medi-Cal? How do the challenges differ by client population?*
- 2. What strategies, work arounds and other efforts are local agencies, providers and community organizations employing to help address care coordination challenges? What innovations and best practices are happening locally?*
- 3. What policy change or flexibility would make the most difference in effectively meeting the needs of Medi-Cal recipients?*
- 4. What are some successes of care coordination? What does good care coordination look like? What does success look like and how should it be measured? What can and should care coordination accomplish for the recipients served? For the system overall?*
- 5. What is the status of local care coordination initiatives such as Whole Person Care, Whole Child Model, Health Homes, Cal Medi-Connect, and others?*

BACKGROUND

The Medi-Cal program is at a crossroads. Multiple deadlines, changes in federal law and system challenges will be converging over the next few years, requiring thoughtful and comprehensive review of the current program. (See the recent ITUP publication [Mapping the Future of Medi-Cal](#) for more on the issues affecting Medi-Cal in the next several years.)

While 82 percent of Medi-Cal recipients are enrolled in Medi-Cal managed care (MCMC) plans, and just 18 percent remain in the fee-for-service (FFS) program, the Medi-Cal delivery system continues to be complex and often fragmented. MCMC plans deliver and pay for covered services and are required to coordinate services for enrolled members (enrollees) through contracts with the state Department of Health Care Services (DHCS).

However, certain services and populations are excluded, or “carved out,” from MCMC. For example, specialty mental health services (for individuals with severe mental illness) and most substance use disorder (SUD) treatment services are carved-out of MCMC contracts and administered by counties. Medi-Cal recipients must access major organ transplants, most psychotherapeutic drugs, and most HIV/AIDS drugs through the FFS program. Most individuals “dually-eligible” for Medicare and Medi-Cal are not required to enroll in MCMC but may do so voluntarily.

Under the current system, many Medi-Cal recipients, such as those with complex chronic conditions or co-occurring physical and mental health conditions, must secure the care and services they need through multiple health plans and programs operating under different state laws, regulations, funding streams and contracts. In addition, low-income individuals with significant health issues or disabilities often also require social support services, necessitating interaction with additional agencies and community providers.

To address the challenges of a fragmented system, the state currently administers multiple programs and demonstration projects -- including several federal Medicaid waivers soon up for renewal -- to assess, track and coordinate health and health-related services for Medi-Cal recipients. (See Appendix A.)

Defining Care Coordination

The term “care coordination” can have many meanings. Sometimes care management, case management and care coordination are used interchangeably but can also describe different activities and functions.

While there is no consensus definition of care coordination, most descriptions generally share the same core goal. The federal Agency for Healthcare Quality and Research states that, “*care coordination involves deliberately organizing patient care activities and sharing information among all of the participants concerned with a patient’s care to achieve safer and more effective care. This means that the patient’s needs and preferences are known ahead of time and communicated at the right time to the right people, and this information is used to provide safe, appropriate, and effective care to the patient.*”¹ Thus, care coordination works to meet the patient’s needs in a patient-centered, safe, and efficient way.

Approaches to care coordination can also vary in response to patient needs, delivery system context, and other factors. For example, care coordination activities can include medication management, assessing patient needs and goals, linking to community resources, supporting transitions of care, and establishing clear roles and responsibility among providers and agencies involved in a client’s care. Care coordination can include coordinating services through a single provider, such as the primary care provider, sometimes referred to as a medical home.

Care coordination is an important factor in ensuring safe, high-value, quality care. The need for care coordination depends on a patient’s clinical complexity, the extent of delivery system fragmentation, and a patient’s capacity to coordinate care on their own. When there are gaps in needed care coordination—such as during transitions between services and providers—it can be harmful to the patient and expensive for the health care system.

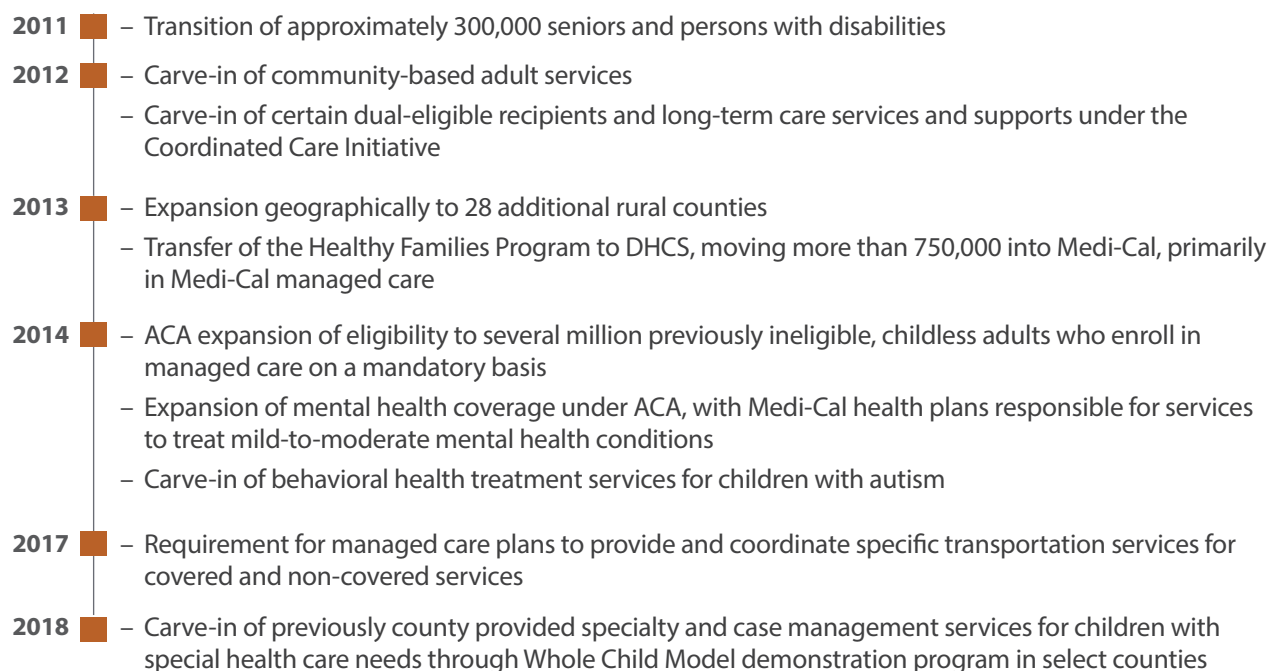
The California Story

In the mid-1970s, California led the development of managed care in Medicaid and gradually expanded managed care in geographic reach, populations served, and covered benefits over the next 40 years.

California did so with the stated intent to achieve broad program goals such as cost efficiency, improved access, higher quality, and better coordinated care. Today, MCMC is offered statewide and covers about 82 percent of the 13 million Medi-Cal program recipients.

Some of the most recent managed care expansion milestones are outlined in Figure 1.

Figure 1. Recent Medi-Cal Managed Care Milestones



Source: Insure the Uninsured Project

County-Based Structure. The Medi-Cal program relies heavily on counties in the administration of the program and this means that Medi-Cal recipients can have very different experiences depending on the county where they live. County social services agencies determine Medi-Cal eligibility for all but aged, blind, and disabled recipients of Supplemental Security Income/State Supplemental Payment funds, who are automatically enrolled in Medi-Cal by the Social Security Administration. In addition, counties oversee the Medi-Cal enrollment and recertification process. In many counties, county clinics, hospitals, county-based health plans and other county programs organize and deliver Medi-Cal services. Counties and local entities also contribute to the financing of health care services for Medi-Cal recipients, including for services related to managed care, as well as case management, specialty services, and care coordination programs.

Multiple Managed Care Models. As California expanded the reach of MCMC, the timing and approach varied by region, resulting in six different managed care models providing care in 58 counties. Recipients may have different care experiences and access depending on their resident county because of these differences. Most Medi-Cal recipients are automatically enrolled in a managed care plan offered in their county. MCMC plans include a mix of local public health plans generally organized by counties and private health plans voluntarily participating in Medi-Cal. See Figure 2 for key characteristics and counties served by the six MCMC models.

California's local public health plans serve a majority of the Medi-Cal recipients enrolled in MCMC (55.5 percent). County-organized health system (COHS) plans enroll all MCMC enrollees in the counties served. As of December 2018, 2.1 million Medi-Cal enrollees are enrolled in six COHS plans in 22 counties (16 percent of Medi-Cal beneficiaries). Local Initiative (LI) health plans participate in the "Two-Plan model" of MCMC, where they serve as the public plan choice in a county alongside a commercial, non-governmental health plan. There are five million Medi-Cal enrollees in nine LIs in 13 counties (39 percent of Medi-Cal beneficiaries). Statewide, 74 percent of MCMC enrollees in Two-Plan counties are enrolled in the LI.

Figure 2. Medi-Cal Managed Care Models

MODEL TYPE		COUNTIES SERVED
Two-Plan Model	<ul style="list-style-type: none"> ▪ One county-organized local initiative public health plan and a commercial health plan ▪ Statewide December 2018 enrollment: 6.8 million 	<ul style="list-style-type: none"> ▪ Operates in 14 counties: Alameda, Contra Costa, Fresno, Kern, Kings, Los Angeles, Madera, Riverside, San Bernardino, San Francisco, San Joaquin, Santa Clara, Stanislaus and Tulare
COHS	<ul style="list-style-type: none"> ▪ One county-wide, public health plan originally organized by the county serves all Medi-Cal beneficiaries in the county ▪ Three of the six COHS plans currently serve multiple counties ▪ Statewide December 2018 enrollment: 2.1 million 	<ul style="list-style-type: none"> ▪ Operates in 22 counties: Del Norte, Humboldt, Lake, Lassen, Marin, Mendocino, Merced, Modoc, Monterey, Napa, Orange, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Trinity, Ventura and Yolo
GMC	<ul style="list-style-type: none"> ▪ Multiple commercial health plans are chosen by the state ▪ Statewide December 2018 enrollment: 1.1 million 	<ul style="list-style-type: none"> ▪ Operates in San Diego and Sacramento
Regional Model and County-specific Models	<ul style="list-style-type: none"> ▪ One or two commercial health plans in 20 primarily rural counties ▪ Statewide December 2018 enrollment: 378,000 	<ul style="list-style-type: none"> ▪ Alpine, Amador, Butte, Calaveras, Colusa, El Dorado, Glenn, Inyo, Mariposa, Mono, Nevada, Placer, Plumas, Sierra, Sutter, Tehama, Tuolumne and Yuba ▪ In Imperial County, beneficiaries choose from among two commercial plans. DHCS separately refers to this as the "Imperial Model" ▪ In San Benito County, beneficiaries choose between one commercial plan and FFS. DHCS refers to this as the "San Benito" model

Source: Insure the Uninsured Project

Carve-outs and Specialty Managed Care Systems. While most physical health services and Medi-Cal recipients are covered by the MCMC plans, certain services and populations are carved-out or excluded as highlighted above. As a result, MCMC plans must coordinate with several specialty Medi-Cal delivery systems and programs. Recipients may access carve-out services through specialized managed care plans, such as county mental health plans, or through Medi-Cal FFS. MCMC carve-outs include dental services, substance use services and specialty mental health services. See Figure 3 for a more comprehensive listing of MCMC carved-out services.

Care Coordination Requirements. There are several care coordination requirements for MCMC plans and for some of the programs and services that are carved out of MCMC. MCMCs are contractually required by DHCS to coordinate care for their enrollees, for both covered and non-covered benefits.² This may include establishing memorandums of understanding (MOUs) between health plans and other delivery systems or programs. For example, MCMC plans must have MOUs with regional centers that help coordinate care for developmentally disabled persons. Regional centers are nonprofit private corporations that contract with the state Department of Developmental Services to provide or coordinate services and supports for individuals with developmental disabilities. They have offices throughout California that serve as a local resource to help find and access the many services available to individuals and their families. MCMC plans must also have MOUs with counties related to mental health and SUD services.

Figure 3. Select Medi-Cal Services* Covered by MCMC Plans and Carved Out of MCMC Contracts (As of June 2019)	
COVERED BY MCMC PLANS	SERVICES CARVED OUT
<ul style="list-style-type: none"> ▪ Physician Services ▪ Outpatient (Ambulatory) Services ▪ Emergency Services ▪ Hospice and Palliative Care ▪ Hospitalization ▪ Outpatient Surgery ▪ Maternity and Newborn Care ▪ Pediatric Services ▪ Prescription Drugs ▪ Rehabilitative and Habilitative Services and Devices ▪ Laboratory Services ▪ Preventive and Wellness Services and Chronic Disease Management ▪ Chiropractic ▪ Podiatry ▪ Vision ▪ Acupuncture ▪ Outpatient Mental Health Services for Mild to Moderate Conditions 	<ul style="list-style-type: none"> ▪ Specialty Mental Health ▪ Alcohol/SUD Treatment ▪ Institutional Long-term Care (Except for County Organized Health Systems or COHS) ▪ Home and Community Based Waiver Services ▪ In-Home Supportive Services ▪ Non-Medical Dental ▪ Major Organ Transplants ▪ Most Psychotherapeutic and SUD Drugs, Blood Factor, Antiviral ▪ Most HIV/AIDS Drugs ▪ CCS Services (Except for the plans administering the Whole Child pilot) ▪ Certain Lab Tests and Certain Management and Tuberculosis Services ▪ Special Care Services for Adults with Genetic Diseases

Source: Insure the Uninsured Project

*Note: This list, prepared by ITUP using multiple sources, is not an exhaustive list of Medi-Cal covered services. Some services covered by MCMC plans are only available through a Federally Qualified Health Center. Medi-Cal services must be medically necessary and may be subject to limitations, including prior authorization or other service limits as allowed by law.

Care Coordination Waivers and Specialty Programs. The state administers multiple specialty programs aimed at improving the delivery of care to bridge gaps, integrate services, and strengthen care coordination. These programs use a variety of care management, delivery system restructuring, service navigation, care plan development, and assessment and monitoring activities to achieve their stated goals. Generally, these special programs target specific, high need and vulnerable populations, including those who are homeless or have acute health care needs. Existing “care coordination” programs are generally limited in the number of individuals enrolled or served in the programs and are at various stages of implementation. Most waiver and specialty care management programs are not available statewide. A summary of selected care coordination programs, their target populations, and implementing organizations is provided in Appendix A.

Coordination Challenges. The Medi-Cal program remains a fragmented system with numerous carve-outs from participating health plan contracts and multiple systems and programs providing services to recipients. Despite significant efforts to improve the coordination of care for recipients via managed care delivery systems, and specific specialty and pilot programs, significant challenges persist. These challenges to care coordination and integration can be categorized in four broad domains: (1) policy, (2) structural, (3) financial, and (4) individual or population characteristics. To facilitate the discussion, Figure 2 illustrates the domains affecting care coordination and lists some of the barriers to success within each domain.

Figure 4. Challenges to Coordinated And Integrated Care
Discussion Draft



Source: Insure the Uninsured Project

What's Next for California?

The Medi-Cal program is at a critical juncture as the state faces expiration of important federal Medicaid waivers and existing specialty programs are due for evaluation or review. As a result, several potential policy and Medi-Cal program change opportunities are on the horizon. These opportunities come alongside increased demands and requirements by various stakeholders for better program performance on outcomes and value. (For more details about Medi-Cal basics, delivery systems, and upcoming waiver and program renewals, see the ITUP issue brief entitled [Mapping the Future of Medi-Cal](#).)

In 2108, DHCS held a series of stakeholder convenings focused on care coordination and the overall future of the Medi-Cal program, referred to as the Care Coordination Assessment Project (CCAP). (See text box below for more detail.) DHCS recently announced that it will begin more robust stakeholder discussions following up on the CCAP in the Fall of 2019.

The 2019 ITUP regional workgroups are well-timed to engage stakeholders in communities around the state on care coordination topics. The discussion is important for the future of the Medi-Cal program and its ability to ensure recipients receive the health and health-related services they need to improve and preserve health. Through the regional workgroups, ITUP will collect key findings and best practices culminating in a *Notes from the Field* summary publication and panel discussions at the 24th Annual ITUP Conference in February 2020.

DHCS Care Coordination Assessment Project

In 2018, DHCS initiated the Care Coordination Assessment Project (CCAP) to review care coordination across the Medi-Cal delivery system from a managed care lens. As part of this project, DHCS convened an Advisory Committee comprised of selected stakeholders that met six times in 2018 to discuss care coordination issues and potential policy recommendations. DHCS set a series of goals for the project including determining “whether a set of standards and expectations regarding appropriate care coordination activities and requirements can be developed within and among all the Medi-Cal delivery systems.” The project included an internal review of various rules and regulations as well as site visits with key stakeholders across California. The convenings explored elements of care coordination including screenings, health assessments, data, transitions in care, and governance. Learn more about the CCAP at the DHCS [web site](#).

DHCS recently summarized the findings from the CCAP as outlined below.

Recap of DHCS Care Coordination Assessment Project		
Reduce Variation And Complexity Across The System	Identifying And Managing Member Risk And Need Through Population Health Management Strategies	Improve Quality Outcomes And Drive System Transformation Through Value Based Payments, Incentives And Shared Savings
<ul style="list-style-type: none"> ▪ Plan Accreditation ▪ Mandatory enrollment in managed care vs. FFS ▪ Annual Medi-Cal Health Plan Open Enrollment ▪ Standardizing the benefit statewide ▪ Exploring opportunities for integration and breaking down historical delivery system silos ▪ Standardize/consolidate state required assessments 	<ul style="list-style-type: none"> ▪ Risk Stratification/Assess Members for Risk and Need ▪ Wellness and Prevention ▪ Transitions in Care ▪ Point of Care and Community Based Enhanced Care Management ▪ Addressing Social Determinants of Health ▪ Explore In-Lieu of Services 	<ul style="list-style-type: none"> ▪ Funding Flexibility ▪ Value Based Payments ▪ Shared Savings Models ▪ Incentives to drive delivery system transformation ▪ Behavioral Health quality and performance metrics ▪ Behavioral Health payment reform
Source: Department of Health Care Services, presentation to Medi-Cal Stakeholder Advisory Committee, May 2019		

Acknowledgement

ITUP wishes to thank Meredith Wurden of Wurden Consulting for her collaboration and research support on this project.

Notes

1. Agency for Healthcare Research and Quality. [Care Coordination](#), obtained online June 2019.
2. MCMC plan requirements are included in contracts with the state and various guidance or “All Plan Letters.” For example, Exhibit A, Attachment 11 describes requirements for case management and care coordination and also outlines responsibilities for case management across systems of care.

APPENDIX A

**Appendix A: Selected Care Coordination Programs
Serving Medi-Cal Recipients, June 2019**

PROGRAM	TARGET POPULATION	COORDINATING ENTITY	FEDERAL AUTHORITY	FUNDING SOURCE
Assisted Living Waiver (ALW) aims to facilitate skilled nursing transitions into the community and prevent skilled nursing facility placements by providing beneficiaries with a choice to live in an assisted living setting. The program provides personal care, home health aide, care coordination, homemaker, residential habilitation, augmented plan of care development, and nursing facility transition services.	Seniors and persons with disabilities who need the level of care provided in a nursing facility who are age 21 or older, as specified	Provider types include care coordination agencies, home health agencies, and residential care facilities	Medicaid waiver §1915(c) Home and Community-Based Services ³ Program is effective through February 29, 2024	State General Funds and federal Medicaid funds
California Community Transitions (CCT) seeks to safely transition eligible Medi-Cal beneficiaries residing in health care facilities, such as long-term nursing facilities, to a community setting. Transition coordinators work with the participants, their support networks, and providers. Services include transitional case management, personal care, family and informal caregiver training, and pre-transition coordination.	Seniors and persons with developmental disabilities, physical disabilities, and/or mental health conditions living in skilled nursing care for 90 days or more	Designated lead organizations providing home and community-based services authorized by DHCS	Money Follows the Person demonstration as authorized by several authorities including the Deficit Reduction Act of 2005 (Section 6071) and the Affordable Care Act (ACA) of 2010 Effective through September 30, 2020	State General Funds and federal grant funds Grant funds support an enhanced match for services
Community-Based Adult Services (CBAS) offers facility-based services to frail older adults and adults with disabilities to restore or maintain their optimal capacity for self-care to delay or prevent institutionalization. A multidisciplinary team of health professionals conducts a comprehensive assessment of each potential participant to determine the services needed such as social services, care coordination, speech therapy, nutritional counseling, and personal care.	Older adults and individuals with disabilities, with chronic mental, health, or cognitive conditions at risk of needing institutional care	About 250 licensed CBAS centers provide services as a covered Medi-Cal benefit, primarily administered by Medi-Cal Managed Care (MCMC) plans	Medicaid waiver §1115 Demonstration Waiver ⁴	State General Funds and federal Medicaid matching funds CBAS services are included in the capitated rate the State pays to Medi-Cal managed care plans

**Appendix A: Selected Care Coordination Programs
Serving Medi-Cal Recipients, June 2019**

PROGRAM	TARGET POPULATION	COORDINATING ENTITY	FEDERAL AUTHORITY	FUNDING SOURCE
<p>Coordinated Care Initiative (CCI) / Cal MediConnect seeks to generally improve care eligible to beneficiaries by coordinating medical, long-term institutional, and home-and community-based services through MCMC plans; requires mandatory enrollment for certain beneficiaries.</p> <p>Cal MediConnect is a component of the CCI that specifically integrates services—including long term services and supports—within a single health plan for those who are dually eligible for Medi-Cal and Medicare.</p>	Dual-eligible and Medi-Cal only beneficiaries, including some seniors and persons with disabilities previously excluded from MCMC	MCMC plans in seven California counties ⁵	§1115 Demonstration Waiver Effective through December 31, 2022	State General Funds and federal Medicaid matching funds
<p>Drug Medi-Cal Organized Delivery System (DMC-ODS) is a pilot to expand substance use disorder (SUD) benefits by offering a full continuum of care through a managed care system that ensures needed, evidenced based services are provided including case management, coordination, medication assisted treatment, and recovery services. Participating entities must meet federal managed care requirements.</p>	Beneficiaries needing SUD treatment and services	County governments that voluntarily participate	§1115 Demonstration Waiver	Local funds and federal Medicaid matching funds Counties provide a certified public expenditure (CPE) ⁶ that is matched with federal Medicaid funds
<p>Health Homes Program (HHP) coordinates the full range of physical health, behavioral health and many community-based services needed by eligible beneficiaries through comprehensive care management, care coordination, health promotion, transitional care, individual and family support, and referral to community and social services.</p>	Beneficiaries with a chronic condition, as specified, and a demonstrated high level of acuity/complexity	MCMC plans work with Community-Based Care Management Entities (CB-CMEs). 18 health plans are participating in 13 counties. ⁷	ACA (§2703) authorizes program as a Medicaid benefit with higher matching rate in first two years §1115 Demonstration Waiver and Medicaid State Plan ⁸	Local grant ⁹ and federal Medicaid matching funds provided at 90 percent for first two years State law allows the program to use State General Fund if program does not result in net costs.
<p>HIV/AIDS Waiver provides a continuum of care for individuals with HIV/AIDS to remain in their homes. Services include enhanced case management, attendant care, nutritional counseling, and others.</p>	Beneficiaries with late stage HIV/AIDS	Local agencies under contract with CA Department of Public Health, Office of AIDS	§1915(c) Home and Community-Based Services Waiver Effective through December 31, 2022	State General Funds and federal Medicaid matching funds

Appendix A: Selected Care Coordination Programs Serving Medi-Cal Recipients, June 2019

PROGRAM	TARGET POPULATION	COORDINATING ENTITY	FEDERAL AUTHORITY	FUNDING SOURCE
<p>Home and Community-Based Alternatives (HCBA) Waiver provides care management services for beneficiaries at risk of institutional placement. Comprehensive care management services are provided by a multidisciplinary care team including a nurse and social worker. Services covered under this waiver include habilitation, home respite, community transition, and others.</p>	Beneficiaries at risk for nursing home or institutional placement	State contracted waiver agencies that function as “organized health care delivery systems” approved by DHCS; can include non-profits, counties and other entities	§1915(c) Home and Community-Based Services Waiver Effective through December 31, 2022	State General Funds and federal Medicaid matching funds
<p>In-Home Operations (IHO) offers care management and coordination, home respite, habilitation, community transition, and other services in lieu of an institutional setting. Beneficiaries will have the option to transition to the HCBA waiver program because IHO will not be renewed beyond 2019.</p>	Beneficiaries with long term medical conditions who receive direct care services from a licensed nurse, as specified	Individual nurse practitioners, home health agencies and personal care agencies	§1915(c) Home and Community-Based Services Waiver Effective through December 31, 2019	State General Funds and federal Medicaid matching funds
<p>Multipurpose Senior Services Program (MSSP) seeks to avoid premature placement of seniors in nursing facilities. MSSP provides services to help seniors remain safely in their homes or in community settings through services such as case management, respite care, meal services, personal care, and others. MSSP is scheduled to transition to a managed care benefit effective January 1, 2023 as a result of the CCI. MSSP is already a plan benefit in San Mateo County.</p>	Beneficiaries age 65 or older who are eligible for skilled nursing placement	State-contracted local governments and private nonprofit agencies	§1915(c) Home and Community-Based Services Waiver Effective through June 30, 2019	State General Funds and federal Medicaid matching funds
<p>Program of All-Inclusive Care for the Elderly (PACE) is a managed care, facility-based model of care that provides and coordinates all needed preventive, primary, acute, and long-term care services to help beneficiaries remain safely at home or in a community setting. The PACE model includes an interdisciplinary team approach to care including physicians, nurse practitioners, nurses, social workers, therapists, and others.</p>	Beneficiaries age 55 or older that qualify for nursing facility level of care but can live safely in the community in a PACE service area	PACE Organizations (POs) approved by DHCS; 11 are currently in operation	Balanced Budget Act of 1997 and several other federal authorities	State General Funds and federal Medicaid matching funds The State pays POs a capitated rate for services.

Appendix A: Selected Care Coordination Programs Serving Medi-Cal Recipients, June 2019

PROGRAM	TARGET POPULATION	COORDINATING ENTITY	FEDERAL AUTHORITY	FUNDING SOURCE
<p>Public Hospital Redesign and Incentives in Medi-Cal (PRIME) is designed to achieve better value and improve hospital infrastructure and care delivery through a range of interventions. PRIME entities may receive up to \$3.7 billion in federal Medicaid funding over five years for achieving metrics in implementing clinical projects designed to change the way care is delivered. Program elements include those focused on care management, care transitions, integration of physical and behavioral health, and others.</p>	Beneficiaries with encounters at safety net hospitals, including those that are high risk and high cost, as specified	Designated Public Hospitals District and Municipal Public Hospitals	\$1115 Demonstration Waiver	Local funds and federal Medicaid matching funds Local funds are submitted through an intergovernmental transfer (IGT) ¹⁰ provided by participating hospitals.
<p>Specialty Mental Health Services Waiver services are provided by State contracted mental health plans (MHPs) in each county who are required to arrange or provide comprehensive specialty mental health services to eligible beneficiaries. MHPs provide a range of services, including intensive care coordination, medication support, targeted case management, psychiatric health facility services, and others. MHPs are required to meet federal managed care requirements.</p>	Beneficiaries who have a mental illness or mental health treatment need serious enough to require the services of a mental health specialist	MHPs	1915(b) Freedom of Choice Waiver ¹¹ Effective through June 30, 2020	Local funds and federal Medicaid matching funds Counties submit CEPs to receive federal matching funds
<p>Whole Child Model (WCM) is a pilot project to integrate California Children's Services (CCS) program services into certain managed care plans to improve care coordination, streamline care delivery, and other goals. Services integrated include medical case management services, care coordination and program administration services previously the responsibility of the State or counties. (While the managed care plan is responsible for most CCS related services under WCM, counties and the State still retain some functions).</p>	Children with certain diseases or chronic health conditions such as cerebral palsy, hemophilia, and cystic fibrosis	County Organized Health Systems (COHS) plans in 21 counties ¹²	\$1115 Demonstration Waiver ¹³	State General Funds, local funds, and federal Medicaid matching funds. MCMC plans receive a capitated rate for WCM beneficiaries.

Appendix A: Selected Care Coordination Programs Serving Medi-Cal Recipients, June 2019

PROGRAM	TARGET POPULATION	COORDINATING ENTITY	FEDERAL AUTHORITY	FUNDING SOURCE
<p>Whole Person Care (WPC) is a pilot aimed at coordinating health, behavioral health, and social services for specified Medi-Cal beneficiaries to achieve better beneficiary outcomes. The pilots implement collaborative leadership, data sharing between systems, and coordination of care in real time, as well as evaluating individual and population progress. WPC pilots test whether local collaborations between systems delivering physical and behavioral health as well as social services can improve health outcomes and reduce costs.</p>	<p>High users of multiple health and social service systems, including those with two or more chronic conditions; those with mental and/or SUD; or those at risk of homelessness</p>	<p>Counties, cities, and health facilities, as specified. Primary counties have chosen to become WPC pilots¹⁴</p>	<p>§1115 Demonstration Waiver</p>	<p>Local funds and federal Medicaid matching funds.</p> <p>WPC pilots provide IGTs to receive federal funds.</p>
<p>Targeted Case Management services are provided by local governmental agencies (LGAs) and other entities to eligible Medi-Cal beneficiaries, including assessment and reassessment, development and revision of a specific care plan, referral and related activities as well as monitoring and follow-up activities.</p>	<p>Children under age 21 and/or beneficiaries that are medically fragile, at-risk of institutionalization, in jeopardy of negative health or psycho-social outcomes, with a communicable disease</p>	<p>LGAs, Regional Centers</p>	<p>Medicaid State Plan¹⁵</p>	<p>State General Funds, local funds, and federal Medicaid matching funds</p> <p>LGAs provide CPEs to the State to receive federal matching funds</p>

Source: Insure the Uninsured Project, 2019

Notes

- Under the federal Social Security Act waivers provide states flexibility and, in some cases, additional federal funding. §1915 (c) Home and Community-Based Services waivers provide authority and funding for selected target populations and services to support beneficiaries remaining home or in their community instead of in institutional care.
- §1115 of the federal Social Security Act permits states to waive Medicaid program requirements to further the purposes of the program and provide federal funds for program costs not otherwise reimbursable. California's current §1115 Waiver is known as the Medi-Cal 2020 Waiver. Federal approval and related funding will expire December 31, 2020.
- Participating counties: Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Mateo, and Santa Clara.
- A certified public expenditure (CPE) is an incurred expense eligible for federal Medicaid matching funds as outlined in federal law and program rules. A state or local governmental entity can certify an eligible expenditure to draw down federal match.
- Participating counties: Alameda, Fresno, Imperial, Kern, Los Angeles, Orange, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, Santa Clara, and Tulare.
- The State Plan is the agreement between a state and the federal government describing how the state administers its Medicaid program under existing federal laws and requirements. States are required to offer certain benefits and services and may offer certain optional benefits.
- The California Endowment (TCE), a private non-profit foundation, provided initial funding for California's HHP. TCE is paying the 10 percent state match for the first 2 years of each phase of HHP implementation.
- An intergovernmental transfer (IGT) is a transfer of public funds between or within levels of government. The State can use IGTs as the non-federal share to match federal Medicaid funds.
- §1915 (b) Freedom of Choice waivers require beneficiaries to receive Medicaid services through managed care as specified. The waiver permits states to waive a beneficiary's choice of provider in order to require their participation in a managed care system.
- County Organized Health System (COHS) plans are county-wide, public health plans originally organized by the county serves all Medi-Cal beneficiaries in the county. Participating WCM counties include: Del Norte, Humboldt, Lake, Lassen, Marin, Merced, Mendocino, Modoc, Monterey, Napa, Orange, San Luis Obispo, San Mateo, Santa Cruz, Santa Barbara, Siskiyou, Shasta, Solano, Sonoma, Trinity, and Yolo.
- The Medi-Cal 2020 Waiver authorizes two models for care delivery as CCS integration pilots: (1) a provider-based accountable care organization (ACO) and (2) existing managed care plans. CA has authorized Rady's Children's Hospital in San Diego as a CCS demonstration pilot.
- WPC pilots exist in the following counties: Alameda, Contra Costa, Kern, Kings, Los Angeles, Marin, Mariposa, Mendocino, Monterey, Napa, Orange, Placer, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Solano, Sonoma, and Ventura.
- Targeted case management is an optional benefit offered by California under the terms of the Medicaid state plan.

About ITUP

Insure the Uninsured Project (ITUP) is a Sacramento-based nonprofit health policy institute that for more than two decades has provided expert analysis and facilitated convenings for California policymakers and decisionmakers focused on health reform.

The mission of ITUP is to promote innovative and workable policy solutions that expand health care access and improve the health of Californians, through

policy-focused research and broad-based stakeholder engagement.

ITUP is generously supported by the following funders:

- California Community Foundation
- California Health Care Foundation
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June 2019

We thank Palo Alto Medical Foundation (PAMF) patient stakeholders and trial participants, as well as numerous Palo Alto Medical Foundation Research Institute (PAMFRI) team members for making the trial possible. We are grateful to Liran Einav, Aureo de Paula, Jonathan Kolstad, Amanda Kowalski, Jennifer Logg, Matthew Notowidigdo, Stephen Ryan, Justin Sydnor, Kevin Volpp, Stefan Wager and seminar participants at McGill University, University of Pennsylvania, CESifo Digitization, NBER Summer Institute, ASHEcon, Chicago Booth Junior Health Economics Summit, Stanford University, Indiana University, Boston University, and University of California Berkeley for their comments and suggestions. We also thank Sayeh Fattahi, Roman Klimke, and Vinni Bhatia for outstanding research assistance. Research reported in this paper was funded through a Patient-Centered Outcomes Research Institute (PCORI) Award (CDR-1306-03598). The statements in this presentation are solely the responsibility of the authors and do not necessarily represent the views of the Patient-Centered Outcomes Research Institute (PCORI), its Board of Governors or Methodology Committee. The project also received financial support from Stanford Innovation Funds. The experiment reported in this study is listed in the ClinicalTrials.gov Registry (NCT02895295). The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

At least one co-author has disclosed a financial relationship of potential relevance for this research. Further information is available online at <http://www.nber.org/papers/w25976.ack>

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How do Humans Interact with Algorithms? Experimental Evidence from Health Insurance
Kate Bundorf, Maria Polyakova, and Ming Tai-Seale
NBER Working Paper No. 25976
June 2019
JEL No. D1,D12,D8,D81,D82,D83,D9,D90,D91,G22,H51,I13

ABSTRACT

Algorithms increasingly assist consumers in making their purchase decisions across a variety of markets; yet little is known about how humans interact with algorithmic advice. We examine how algorithmic, personalized information affects consumer choice among complex financial products using data from a randomized, controlled trial of decision support software for choosing health insurance plans. The intervention significantly increased plan switching, cost savings, time spent choosing a plan, and choice process satisfaction, particularly when individuals were exposed to an algorithmic expert recommendation. We document systematic selection - individuals who would have responded to treatment the most were the least likely to participate. A model of consumer decision-making suggests that our intervention affected consumers' signals about both product features (learning) and utility weights (interpretation).

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1 Introduction

People increasingly face decisions about complex financial products that have important implications for their health and financial stability. These types of decisions, which affect households across the income distribution, include, but are not limited to, products such as payday loans, mortgages, mobile phone plans, credit cards, life and health insurance, and investment vehicles. Participation in publicly subsidized benefits, such as Medicare, social security and tax-favored retirement arrangements, has evolved in similar ways, increasingly requiring relatively sophisticated financial decision making.

A large literature examining the quality of consumer choices in a variety of areas of household finance, however, suggests that these types of decision are challenging for many people. While many studies have documented that decision-making appears to be costly to consumers and that consumers display many types of behavioral biases that can lead to efficiency losses, there is less evidence on how to help consumers make better decisions. In their review of the household finance literature, [Beshears et al. \(forthcoming\)](#) conclude that many types of interventions designed to influence behavior, such as education and information, have had limited impact.

The emergence of large-scale data over the past decade and the corresponding development of techniques to analyze these data, such as machine learning, have the potential to dramatically change the process of consumer decision making in these environments ([Einav and Levin, 2014](#)). By lowering the costs of prediction, algorithms could help consumers make complex decisions by serving as either substitutes for or complements to human decision-making ([Agrawal et al., 2019](#)). While the literature on the methods of machine learning and artificial intelligence is expanding rapidly ([Liu et al., 2018](#)), there is very little evidence on how consumers incorporate algorithmic assistance into their decision making.

In this paper, we begin to close this gap by reporting on the results of a randomized controlled trial in which we offered older adults access to a decision-support tool incorporating personalized cost estimates and algorithmic expert recommendations for choosing among insurance plans. Our study makes three types of contributions to our understanding of how consumers interact with algorithmic-based recommendations. First, in contrast to most studies on the effects of informational interventions, our experimental results demonstrate - in a non-laboratory setting - that consumers are responsive to personalized information when making decisions. We find that people change their choices of insurance plans in response to our treatment and that the response is more pronounced when personalized information is combined with an “expert recommendation” feature that combines different types of information into a one-dimensional metric, simplifying the choice for consumers.

Second, the experimental set-up, combined with novel, machine-learning methods for estimating heterogeneous treatment effects, allows us to shed light on which types of consumers self-select into the use of electronic decision-support. We find evidence of substantial positive selection into the use of the on-line tool - more “active shoppers” are more likely to use the decision-making support tool, conditional on signing up for the experiment. Using our estimates of the treatment effects function, we also are able to analyze the likely response to the intervention of the people who did not take up the offer to participate in the experiment. We find that the

people who were the least likely to sign up for the experiment were those for whom the effects of our intervention on decision-making would have likely been the greatest.

Finally, we develop a theoretical framework to elucidate the mechanisms by which information affects consumer decision making in our setting and then use our trial data to estimate a structural model of choice to quantify the relative importance of each mechanism. We propose that providing information to consumers can have two conceptually distinct effects: it can change consumers' beliefs about the mapping of product characteristics into utility ("interpretation"), and it can also change consumer beliefs about product characteristics per se ("learning"). We find evidence that both channels are important in this setting and quantify how each one affects consumer welfare.

We examine consumer decision-making in the context of publicly subsidized prescription drug insurance for older adults in the US. Medicare Part D is a social insurance program for aged and disabled Medicare beneficiaries in which private plans compete for subsidized enrollees. The program is heavily subsidized and has high participation rates - insuring over 43 million older adults and accounting for over \$88 billion in annual public spending (Kaiser Family Foundation, 2018). Older adults may choose between two types of private plans - a stand-alone prescription drug plan (PDP) or a Medicare Advantage (MA) plan in which coverage for prescription drugs and medical care are bundled in a single plan. In this project, we focus on stand-alone PDPs. Each year during a pre-specified open enrollment period, older adults covered by Medicare may choose a plan from among the approximately 25 stand-alone insurance plans offered in their geographic area (Kaiser Family Foundation, 2018).

Our study builds on a large and active economics literature examining health insurance choice more generally, with many studies focusing specifically on Medicare Part D (Keane and Thorp, 2016). While people with Medicare prescription drug plans are allowed to change their plans during an annual open enrollment period, switching rates are very low, with fewer than 10% of consumers changing their plans each year (Ericson, 2014; Polyakova, 2016; Ho et al., 2017), consistent with the literature documenting inertial behavior in this type of context beginning with Samuelson and Zeckhauser (1988). Estimates of switching costs are generally relatively large - ranging from 20 to 45 percent of annual spending (Handel, 2013; Ericson, 2014; Ho et al., 2017; Polyakova, 2016; Heiss et al., 2016). Several studies have documented that people often do not understand the basic features of their coverage (Cafferata, 1984; Harris and Keane, 1999; Kling et al., 2012; Loewenstein et al., 2013; Handel and Kolstad, 2015) and that their misperceptions influence their plan choices (Harris and Keane, 1999; Handel and Kolstad, 2015). Moreover, many people, when given a choice of plans, often choose a dominated option (Sinaiko and Hirth, 2011; Bhargava et al., 2017). Further, Ericson and Starc (2016) find that consumer choices and inferred utility weights change when health insurance products become standardized.

Other studies draw stronger, normative conclusions about consumer decision making (Abaluck and Gruber, 2011; Heiss et al., 2010; Heiss et al., 2013, 2016). For example, using a structural model of choice, Abaluck and Gruber (2011) find that older adults choosing among prescription drug plans weight premiums more highly than out-of-pocket costs; value plan characteristics, such as deductibles, beyond their effect on OOP spending; and place almost no value on the variance reducing aspects of plans. Ketcham et al. (2016) argue, however, that

these results may be driven at least in part by omitted variable bias - in particular, characteristics of plans such as customer service that are more difficult for econometricians to observe. Other research provides support for these concerns (Harris and Keane, 1999; Handel and Kolstad, 2015). For example, Harris and Keane (1999), adding attitudinal data to a structural model of choice, demonstrate that failing to control for these latent attributes leads to severe bias in estimates of the effects of observed attributes. Ketcham et al. (2015) also find that consumer decision-making improves over time, suggesting that choice inconsistencies may be short-lived. In our theoretical framework and its empirical mapping, we argue that these results can be reconciled if we allow for the possibility of “mistakes” both in consumers’ information about product features, as well as in their interpretation of how much (known) product features matter for their utility. Consumer may learn about product features over time and yet not be interpreting this knowledge accurately.

Some recent studies have examined the importance of in-person advice relative to personalized information, but not algorithms, in the context of college funding and the SNAP program (Bettinger et al., 2012; Finkelstein and Notowidigdo, 2019). Few have examined the development and effects of products intended to help consumers choose among health insurance plans. Our paper relates most closely to the randomized field experiment conducted in the second year of Medicare Part D program by Kling et al. (2012). In this experiment, the authors sent Medicare Part D beneficiaries letters with personalized calculations of out-of-pocket costs that they would face in each insurance plan if they continued taking their existing medications. The personalized calculations were based on an out-of-pocket cost calculator made publicly available by the Medicare program. The experimental intervention increased plan switching rates. The authors interpret their findings as demonstrating the existence of “comparison friction” - that people often do not use potentially helpful information that appears readily accessible to them (Kling et al., 2012). Our findings emphasize the importance of these results by providing more direct evidence of the potential benefits of these types of tools for people who are unlikely to use them. We also demonstrate that how personalized information is presented has important implications for its use.

Our randomized field trial ran during the 2017 open enrollment period (November-December 2016). We conducted the project in collaboration with the Palo Alto Medical Foundation (PAMF), a large multi-specialty physician group in California. As part of the project, we designed and developed a software tool with the objective of helping older adults choose among Medicare part D prescription drug plans. Patient and provider stakeholders at PAMF participated in the design and development stages.

In addition to incorporating many aspects of user-centric design specific to this population, the tool incorporated three main features. First, the tool automatically imported a user’s prescription drug information from their electronic medical record at PAMF. Second, the tool provided personalized information on expected spending in each available plan, including both the premium and the individual’s likely spending on prescription drugs. Finally, the tool incorporated algorithmic expert recommendations. From a third-party vendor, we also obtained a personalized “expert score” for each insurance plan that summarized multi-dimensional plan features into a one-dimensional metric. Our trial population were PAMF patients eligible for Medicare Part D plans.

The experiment had two treatment arms and one control arm. People in the control arm did not receive

access to the decision-support software. Instead, when they logged into the study website, they saw a reminder about the timing of the open enrollment period and information about how to access publicly available resources to help them choose a plan. In the “Information Only” treatment arm patients received access to software that provided a list of all available plans with the individualized cost estimate and information about other plan features. The plans were ordered by the one-dimensional “expert” score, but the score itself was not displayed. The tool provided in the other treatment arm, “Information + Expert,” was identical with the exception that the expert score for each plan was displayed and the three plans with the highest personalized score were marked as “Plans recommended for you.”

We report three main findings. First, we find that providing consumers with access to a decision-support tool incorporating personalized cost estimates changes their choice behavior. While the effects of the interventions were qualitatively similar in the two arms, the “Information + Expert” arm had more pronounced effects on all outcomes. For our main outcome - switching of plans - exposure to the “Information + Expert” version of the software increased plan switching rates by 10 percentage points, a 36% increase relative to the control arm. We also find that treated individuals were more likely to be highly satisfied with the choice process, spend more time on the choice process, and choose plans anticipated to provide greater cost-savings. Using the generalized random forest analysis (Athey et al., 2019), we find evidence pointing towards heterogeneity (on observables) in treatment effects. The heterogeneity analysis suggests that treatment effects on the probability of plan switching are larger among individuals that are older and have less IT affinity.

Second, we find that selection into software use is quantitatively important. Many people who signed up for the trial and subsequently chose to use the tool if given access, were planning to switch their insurance plan independently of treatment. Those who chose to take up the software were inherently at least 7 percentage points more likely to switch plans, suggesting that the selection effect is nearly as large as the treatment effect and pointing to a strong complementarity in willingness to shop actively for financial products and interest in decision support tools. Using the individual-level prediction of treatment effects from the generalized random forest algorithm and the administrative data on all individuals that were invited to participate in the trial, we can also examine selection into the trial. We find that among individuals that were invited to participate in the trial, people who would have responded the *most* to the intervention were the *least* likely to sign up. These findings have important policy implications - they suggest that merely offering access to decision support (which is current Medicare policy) is unlikely to reach individuals who would be most affected by such decision-making support. Hence, policies with more targeted and intensive interventions may be required to reach consumers who could benefit from algorithmic expert recommendations.

Finally, we offer a conceptual insight for understanding the nature of the complementarity between machine-based algorithms and human decision making. Algorithms can influence decision making by changing either consumers’ beliefs about product features, or how they value those features. This distinction has important implications for what types of information consumers need in order to make decisions. If consumer choices are inconsistent with rationality because of “behavioral” utility weights, then a policy of providing information about plan features will not lead to any behavioral responses. In contrast, if consumers know exactly how

to evaluate product features, but have a hard time simply observing the features of different products, then policies that attempt to educate consumers about the meaning of various features of financial products may not be necessary or effective.

Estimating an empirical version of this conceptual model, we find that the behavioral responses that we observe in the data are driven by both the learning and interpretation mechanisms we propose. These results offer one way to reconcile the debate in the literature on whether consumers' choices are inconsistent with the neo-classical preferences, or whether individuals are learning over time. Both of these mechanisms are likely to be taking place, as consumers may be learning about either features of their choice set or the utility weights, which could generate both choice inconsistency and learning at the same time. The model allows us to quantify the normative implications of the information and interpretation effects. We find that on average, the consumers that have "noisy" preferences would choose plans that result in 7% of surplus loss relative to "informed" consumers. This loss is extremely unevenly distributed: while for most consumers the noise in their beliefs about plan features and utility weights does not lead them to select suboptimal plans, for some consumers the losses can be quite significant.

The remainder of the paper is structured as follows. In Sections 2 and 3, we describe the key facts about the economic environment in Medicare Part D and our experimental design, respectively. In Section 4, we report the estimates of the causal effects of our intervention on consumer behavior. In Section 5, we analyze several aspects of selection in our setting. In Section 6, we present our conceptual framework and map our experimental results to an empirical version of the model. We then briefly conclude.

2 Background and Study Setting

Medicare is the public health insurance program in the U.S. for people age 65 and over and those eligible for social security benefits through disability. The program covers over 50 million people with 85% qualifying based on age (Centers for Medicare & Medicaid Services, 2019). Prescription drugs for Medicare beneficiaries are covered by Medicare Part D. In contrast to Medicare-financed medical benefits, prescription coverage is provided exclusively by private plans which compete for highly subsidized enrollees in a tightly regulated market (Duggan et al., 2008). In 2018, approximately 43 million individuals benefited from the program (Kaiser Family Foundation, 2018). Enrolling in Medicare Part D is voluntary for beneficiaries and requires an active enrollment decision in the form of choosing among the private plans offered in the beneficiary's market and paying a premium. Medicare beneficiaries can choose to enroll in either a stand-alone prescription drug plan (PDP) or a plan that bundles their medical and prescription benefits (Medicare Advantage). Fifty-eight percent of people enrolled in Medicare Part D choose a stand-alone plan (Kaiser Family Foundation, 2018).

Medicare beneficiaries who decide to enroll in a PDP typically choose from over 20 plans available in their market and can change their plan each year during the open enrollment period (October 15–December 7). Plans are differentiated along a variety of dimensions. First, premiums vary substantially. In addition, while the program has a statutorily-defined benefit package, insurers are allowed to deviate from that package as long

as the coverage they offer is actuarially equivalent or exceeds the statutory minimum. The statutorily-defined benefit, and as result, most offered benefits are non-linear insurance contracts. During 2017, the time period of our study, the statutorily-defined benefit had an initial deductible of \$400 during which enrollees paid 100% of drug spending. After reaching the deductible, the beneficiary paid 25% coinsurance until reaching an initial coverage limit of \$3,700. At that point, the enrollee fell into the “donut hole,” paying 40% coinsurance for branded drugs and 51% for generics until spending reached a catastrophic threshold of \$4,950 after which the beneficiary paid a lower coinsurance rate or a relatively small copayment for each drug (Centers for Medicare & Medicaid Services, 2015; Cubanski et al., 2018). A plan innovating within the statutorily-defined benefit package may, for example, either lower or eliminate the initial deductible while increasing cost sharing on some drugs. Plans are also differentiated along other dimensions such as the composition of pharmacy networks, the availability of mail order, formulary design and customer service. To capture the latter, the Centers for Medicare and Medicaid Services (CMS) has developed a measure of quality based on consumer assessments and annually publishes the “star rating” of plans on a 5-point scale.¹ A consumer enrolled in a plan in a given year who does not actively cancel or change her plan is automatically re-enrolled into the same plan for following year.

Our study focuses on aged beneficiaries enrolled in PDPs. During the 2017 open enrollment period (November-December 2016), we conducted a randomized field trial of a software tool designed to help consumers choose among Medicare Part D plans. Study participants lived in California during the 2017 open enrollment period. They were eligible to enroll in one of 22 plans offered by 10 insurers in California at an average monthly premium of \$66 (standard deviation of \$39). All but one plan offered either a standard deductible of \$400, or lowered the deductible to zero, for an average deductible of \$216, with a standard deviation of \$202. Thirty percent of plans offered some coverage in the “donut hole,” and plans covered on average 3,291 drugs, and varied in their formulary breadth (standard deviation of 257 drugs). The average CMS rating of plan quality in California was 3.4 out of 5 stars (s.d. 0.6).

3 Experimental Design and Data

3.1 Intervention

The trial was part of a larger research project funded by the Patient Centered Outcomes Research Institute in which we developed and evaluated a software tool intended to help Medicare beneficiaries choose among Medicare Part D prescription drug plans. The research was conducted in collaboration with patient and provider stakeholders affiliated with the Palo Alto Medical Foundation. Our focus group and qualitative research preceding tool development identified three key features that we incorporated into the software: automatic importation of the user’s prescription drug information, user-centric design interface, and the availability of expert recommendations (Stults et al., 2018b,a). In the trial, we examined how two versions of the tool, one with and

¹More information about the “star rating” measures is available on CMS Part C and D Performance Data page: <https://www.cms.gov/medicare/prescription-drug-coverage/prescriptiondrugcovgenin/performance.html>.

one without explicit algorithmic expert recommendations, performed relative to directing beneficiaries to existing, publicly available resources. Figure 1 provides screen shots of the intervention’s user interface in the two treatment and the control arms.

The two versions of the tool were identical with the exception of whether the user interface included information on the expert score. In both versions, when people logged in, they viewed a list of their current prescription drugs based on the drugs recorded in their electronic medical record as of June 30, 2016 and had the opportunity to update the list as needed. They could then proceed to a screen listing all the plans available to them. In both arms, the plan list included the name of the plan, the individual’s total estimated spending in each plan based on the entered drugs, and the star rating for each plan. The total estimated spending included the plan premium and out-of-pocket spending for the list of entered drugs based on information about drug-level coverage rules and pricing that Medicare Part D plans annually report to CMS. This computation was based on the user’s current drugs and only incorporated drugs that consumers may need in the future if consumers actively entered them into the tool. The star rating is a plan-level measure primarily of service quality developed and disseminated by CMS. The plan in which the user was currently enrolled was highlighted and labeled as “My Current Plan”. Users were able to select a subset of plans (up to three) for more detailed comparison. The detailed comparison screens provided information on an extensive list of plan features. Consumers were also able to obtain more information about each plan feature by clicking on a "question mark" icon.

The tool also incorporated algorithmic “expert” recommendations. Using proprietary scoring technology from a third-party provider, each plan available to the beneficiary was assigned an expert score. The expert score was based on the consumer’s total spending in the plan for the set of drugs listed in the tool given the plan’s benefit design (spending included each plan’s premium) and the plan’s “star rating”. The expert score combined these plan features into a one-dimensional metric. Plans with lower expected spending for a given individual and higher quality scores received higher expert scores. The expert score was not based on any additional information about the individual or the plan other than total cost and the plan’s star rating.

The two treatment arms differed only based on how they incorporated the expert recommendation. In both treatment arms, the plans were initially ordered by the expert score with the highest ranking plan at the top of the list. In the “Information Only” arm, although the list was ordered by the expert score, users did not see the score itself. In the “Information + Expert” arm, the three plans at the top of the list with the highest scores were highlighted and labeled as “recommended for you”, and the plan information included each plan’s expert score. As Panel A and Panel B of Figure 1 illustrate, the user interface for the treatment arms was very similar with the exception of the expert score column and the highlighting of the top three plans in the “Information + Expert” arm.²

When participants in the control arm logged into the study website, they received access to information on plan enrollment including a reminder about the open enrollment period in Medicare Part D, some information about the benefits of reviewing their coverage, links to publicly available resources that they could use to

²Panel A and Panel B are screenshots for different patients, which explains the different ordering of plans. For the same patient or for two different patients with identical lists of drugs, the ordering of plans would have been the same. Both arms highlighted the incumbent plan, even though it is not visible on B.

evaluate their options, including the Medicare.gov plan finder and Health Insurance Counseling and Advocacy Program counselors, and information about how to access a list of their current prescribed drugs from their electronic medical record. People in the control arm did not receive access to the decision-support software. The control arm is illustrated in Panel C of Figure 1.

3.2 Study Population

We recruited trial participants from patients who receive care at the Palo Alto Medical Foundation (PAMF) to focus on people for whom we had access to electronic information on their use of prescription drugs. Using administrative data from PAMF, we identified a cohort of patients likely to be eligible for the trial based on their age (66 to 85 years), residence (lived in the 4-county primary PAMF service area) and indication of active medication orders (to ensure they were active PAMF patients and thus would have updated medication lists). The administrative data did not allow us to identify people currently enrolled in a Part D plan, our target population. Instead, we excluded people who were unlikely to be enrolled in stand-alone Part D, because they either had a Medicare Advantage or a Medi-Cal (California’s Medicaid program) plan. After these and several other minor exclusions primarily for missing or inaccurate data, we identified 29,451 patients potentially eligible to participate in the trial.

During the fall of 2016, we mailed the 29,451 potentially eligible patients invitations to participate in the trial. The invitation provided some basic information about the trial and informed individuals that they would receive a \$50 gift certificate for participating in the study following the completion of a questionnaire at the end of the open enrollment period. We sent a follow-up letter approximately two weeks later to those who did not respond to the initial invitation. In the letter, patients received a log-in ID and were directed to an enrollment portal in which they could check their eligibility, provide informed consent and respond to a survey from which we collected baseline data to supplement administrative records (Baseline Survey). Patients also provided information that we used to verify their identity subsequent to their on-line enrollment. We considered those who completed the enrollment portal steps and whose identity was successfully authenticated shortly after their on-line enrollment as enrolled in the trial.

At the point of enrollment into the study, participants were randomized to one of the three arms using a random number generator. After subjects enrolled, we sent them a confirmation e-mail with information on how to access the study website and telling them the website would be available shortly after the open enrollment period began. They then received another email reminder once open enrollment began and the tool was active. In both cases, participants received the same standardized e-mail independent of the arm to which they had been randomized. The subjects thus received no information on their assigned study arm until they accessed the study website during the open enrollment period. When participants logged in to the study website, they accessed content specific to the study arm to which they had been randomized. Just before the open enrollment period ended, we e-mailed another reminder to participate. The day after the open enrollment period ended, we e-mailed those enrolled in the study an invitation to participate in the final survey; we sent a survey reminder in early January. The invitation to complete the final survey was sent to all trial participants, independently of

whether they actually accessed the study website during the open enrollment period. We included people who completed the final survey by January 20th in the final study sample. Figure 2 summarizes this process.

Figure 3 describes the enrollment flow. We invited 29,451 PAMF patients to participate. 1,185 ultimately enrolled in the study and were randomized to one of three arms. Among those randomized to each arm, some entered the study website and some did not. Because we sent the final survey to those enrolled in the trial whether or not they entered the study website, within each arm, the final survey includes both those who entered the study website and those who did not. Table 1 provides descriptive statistics for the sample of people invited to participate in the trial and compares the characteristics of those who did and did not choose to enroll in the trial using administrative data from PAMF. The mean and standard deviation of each dependent variable in the table represents summary statistics for the full sample of 29,451 invited individuals. Invited individuals were on average 74 years of age (s.d. of 5 years), 54 percent were female, 35 percent were non-white,³ and 54 percent were married. We matched each individual to their census tract based on their address and developed measures of socioeconomic status based on census tract characteristics including median household income and percent of individuals with a college degree. The average (median) household income in our sample was 107 thousand dollars (standard deviation of 46 thousand) and the average percent of the census tract with a college degree was 54 (standard deviation of 0.2), both reflecting the relatively high socioeconomic status of the geographic area from which we recruited patients.

Invited individuals had on average 4.5 active medication orders for prescription drugs (measured from PAMF records prior to the intervention). Drug use varied considerably, with a standard deviation of 3.2 drugs. Column (8) reports the statistics on Charlson score, a common measure of comorbidities based on diagnosis codes (Charlson et al., 1987). The measure counts how many of 22 conditions an individual has, assigning higher weights (weights range from 1 to 6) to more severe conditions. A higher Charlson score reflects an individual in poorer health. In our sample, the score ranges from 0 (no chronic conditions) to 13, with an average of 1.16 and a standard deviation of 1.53. Finally, we measure individuals' IT-affinity at baseline, by recording whether they had logged in to their PAMF electronic medical record over the 3-year period prior to the trial; and if so, how often they communicated with care providers via this system (Tai-Seale et al., 2019). Our measure of communication frequency is based on conversation strand metric which groups individual e-mails into conversations (Tai-Seale et al., 2014). In the full sample of invited participants, 69 percent had accessed their personal medical record within the prior three years. Intensity of use, measured by the number of communication strands, averaged at 3.3 strands but varied considerably, with a standard deviation of 6. The average number of strands was 4.7 among those individuals who ever logged into the electronic medical record and ranged from zero to 174 strands, with significantly more strands (although not a higher probability of using the system) for individuals with a higher Charlson score or more drugs on their record, as would be expected if patients in poorer health are more likely to communicate frequently with their physicians.

Overall, the sample of individuals who were invited to participate in the experiment were higher income, more educated, and likely more IT-savvy than an average Medicare beneficiary. This difference is important to

³Includes those who did not have a record of their race or reported "other" in electronic medical records.

keep in mind when interpreting our results and considering the external validity of the experiment. The high average income of our participants makes them unrepresentative of the broader population of older Americans; however, this sample provides us with the opportunity to test whether offering decision support software - in one of the wealthiest and technologically most attuned areas of the country - affects individuals' behavior. Our results likely provide an upper bound for the effects - particularly with respect to take-up - in the general population.

Table 1 demonstrates that there was significant selection into trial participation. The row labelled "randomized" provides estimates of how those who enrolled in the trial differ from those who did not, by reporting the results of a regression of each characteristic specified in columns (1)-(8) on a dummy for whether or not the individual agreed to participate in the trial. Those 1,185 individuals that responded to our invitation and chose to enroll in the trial were on average a year and 8 months younger (column 1), 4 percentage points less likely to be women (column 2), 13 percentage points more likely to be white (column 3), 7 percentage points more likely to be married (column 4), had 5.8 thousand dollar higher (measured at census tract level) household income (column 5), and lived in areas in which residents were 4 percentage points more likely to have a college degree (column 6). All of these differences were highly statistically significant and some were also economically significant - the gender difference of 4 percentage points corresponds to women being 7 percent (relative to the mean) less likely to participate, the difference in race suggests that participants were 37% less likely to be non-white and 13% more likely to be married. Those enrolling in the trial did not have a statistically different number of drugs in their records (column 7), but were significantly healthier with a 16 basis points lower Charlson score (column 8), which is 14% lower than the sample mean. The population taking up the treatment offer was substantially more likely to have used PAMF's patient portal to the electronic medical records - 27 percentage points or almost 40% more likely relative to the mean (column 9) - with 96 percent of individuals in the enrolled population having used the PAMF's electronic health records within the last three years. The enrollees also used these systems more intensively, having sent more than twice as many online messages to their care team relative to the general pool (column 10), despite being in better health on average.

3.3 Randomization

Out of 1,185 individuals, 410 were randomized into the "Information + Expert" arm, 391 into "Information Only" arm, and 384 into the control arm. Randomization was done in real time: just after the participant enrolled in the trial through the enrollment portal, he or she was randomized into one of three arms. We performed a Monte Carlo simulation to confirm that the unequal distribution of individuals within each group is consistent with randomization. Importantly, at the point of randomization, the individual did not learn to which arm they had been randomized - so that when they later received notice that open enrollment had begun and they could access the study website, they did not know whether they were going to have access to the treatment intervention. Tables 2 through 5 examine the quality of randomization, compliance with experimental treatment, and attrition. We discuss each in turn.

Table 2 reports our randomization balance checks. We test whether there are differences in means of

observable characteristic by experimental arm assignment. The table reports the results of regressions for each observable characteristics as the outcome variable on the indicators for being randomized into “Information Only” or “Information + Expert” treatment arms. The constant in this regression captures the mean in the control arm. Two out of ten observable characteristics exhibit differences between the control and treatment arms at conventional levels of statistical significance. We observe that individuals randomized into the control arm were 8 months older (1 percent relative to the sample mean) than individuals randomized into either of the treatment arms. We also observe that individuals randomized into the “Information + Expert” treatment arm were more intensive users of the electronic communication with their physicians. The point estimates for this characteristic are not statistically different from zero for the “Information Only” arm. We do not observe any significant differences between the two treatment arms, as suggested by the F-test, reported in the last row of the table. Differences in two out of ten characteristics are possible by chance and the magnitude of the statistically significant differences, as well as the lack of differences in other outcomes suggests that randomization was not compromised and worked as intended. To account for the realized differences in age and intensity of EMR use, as well as to generally reduce the noise in our estimates, we will control for observable characteristics in our analysis of treatment effects in Section 4.3.

We next examine whether there was systematic attrition in response to the endline survey, which is our key source of outcome measures. After individuals (electronically, through the enrollment portal) agreed to participate in the experiment, they were randomized into one of the study arms and given information about how to access the online tool. At the end of the open enrollment period, we sent a survey to all individuals that were originally randomized (independent of whether they participated in the trial by accessing the study website). 928 individuals responded to at least one question in the survey by a pre-specified cutoff date. Table 3 examines whether, relative to 1,185 randomized individuals, the 928 who responded to the survey differed on their observable characteristics. The table reports the results of a regression of each characteristic on a dummy indicating an individual responded to the endline survey. Eight out of ten characteristics do not differ between those who responded to the survey and those who did not. Race and college education, in contrast, do differ. Individuals who responded to the survey were substantially (9 percentage points relative to 22 percent in the randomized sample) less likely to have their race recorded as white (which includes those who did not agree to their race being recorded in EMR) and were slightly more likely to have a college degree as measured at the census tract level (4 percentage points relative to the sample mean of 59 percent). The lower probability of non-white participants responding to the survey is consistent with the growing literature that documents racial gradients in trust in interactions with government and institutions (e.g. [Alsan and Wanamaker, 2018](#)).

Table 4 presents the same analysis of attrition into the endline survey, but separately for each experimental arm. Within each arm, we run a regression of the observable characteristic recorded in each column title on the indicator variable for responding to the endline survey. The results across arms are broadly consistent with the overall attrition results, suggesting no pronounced differential patterns of attrition across arms. We do not observe differential attrition based on race in the control arm, although it is present in both treatment arms. Individuals responding to the survey in the control arm are slightly more likely to have a college degree

(at the census tract level), but are otherwise not different from other individuals in the control arm. In the “Information Only” arm, we observe significant differences in the probability of being non-white. In the “Information + Expert” arm we observe both the race effect as well as the difference in the EMR use intensity - individuals responding to the survey in this arm were slightly more likely to be more intensive EMR users - this difference, however, is not suggesting differential attrition in this arm, since individuals randomized into this arm were higher intensity EMR users at the original randomization stage (as can be seen in column 10 of Table 2).

Finally, in Table 5 we repeat the balance on observable comparison of Table 2 for our main analytic sample of 928 individuals who responded to the endline survey. In column (1), we document that there were no statistically distinguishable differences in survey response rates across three experimental arms. In columns (2) to (11), we report the coefficients of specifications that regress the observable characteristics on the indicator variables for being randomized into two treatment arms. We conclude that randomization was largely preserved at the endline survey stage. We observe that individuals randomized into arm “Information + Expert” are more intensive users of EMR, but this effect was already present at the original randomization. Unlike in the original randomization, we do not estimate statistically significant differences in age across arms, although the point estimates of differences are close to those at the original randomization, suggesting that the differences persist but cannot be detected due to reduced sample size. We detect a slightly more pronounced - relative to the original randomization - coefficient on the probability of being married, suggesting that those who responded to the survey in the “Information + Expert” arm were slightly more likely to be married. In sum, attrition into the endline survey overall appears to be limited; importantly we do not find much evidence for differential attrition across arms above and beyond the differences observed across arms at the original randomization stage. Hence, we proceed to the analysis of outcomes from the endline survey. In all of these analyses, we control for observable characteristics to improve power and to account for any realized differences in observables at randomization and endline survey stages.

3.4 Outcomes

We consider six outcomes across different domains in our baseline specifications, four of which we pre-specified as primary outcomes and two which we pre-specified as secondary outcomes. First, we test whether individuals switched their Medicare Part D plan. We construct our measure of switching using two self-reported measures obtained from the baseline and endline surveys. We are unable to use a measure based on administrative data since PAMF does not have information on the patient’s Medicare Part D plan in its administrative records. In both surveys we asked participants to report their Part D plan - the participants were given the list of available plans and could select one of the plans, or choose “None of the above.” Our first measure of switch is then an indicator that takes the value of one if the Part D plan reported in the endline survey differs from the plan reported in the baseline survey. Further, in the endline survey we directly ask participants whether they switched their plan, which generates the second measure of switching. To reduce the measurement error in the switching metric, we classify an individual as having switched plans only if both indicators indicate a

plan switch. We use this interacted measure of switching as our outcome variable.

The next two outcomes measure different types of consumers’ perceived experience. First, we use a self-reported measure of how satisfied individuals were with the choice process. We construct an indicator outcome variable that takes a value of 1 if an individual reported being “Very Satisfied” (other options included: somewhat satisfied, somewhat dissatisfied, and very dissatisfied) with the process of choosing their plan in the endline survey. Second, we measure the degree of decision conflict that an individual experienced around their Medicare Part D plan choices using a validated scale (O’Connor, 1995; Linder et al., 2011). The score is constructed based on individuals’ replies to 9 questions about their confidence in their choice, availability of support, and understanding of risks and benefits. A higher score value indicates more decision conflict.

Our fourth outcome is a measure of changes in consumers’ expected total (premium + out of pocket) monthly costs. For each consumer, we compute the difference between two levels of expected total costs. One is the level of total cost that consumers would face under the plan they chose in 2017 (as reported in the endline survey). The second is the level of total cost that consumers would have faced in 2017 if they had stayed in their 2016 plan. In both cases, we use the 2016 baseline drug list and the 2017 plan characteristics. Thus, if consumers did not change plans, the difference in total cost would by construction be zero.⁴ For consumers who changed plans, this variable measures the difference between expected 2017 costs in the plan chosen in 2017 to what the expected costs would have been if a consumer stayed in her 2016 plan. The comparison of the expected out of pocket costs in the two plans in the same year captures any common trend in costs.

The fifth outcome is the amount of time individuals spent on their choice. The cost of time and effort is frequently considered to be the main barrier to improving individuals’ choices, so it is important to understand how much the use of software “cost” individuals who chose to take it up. We create an indicator variable that takes the value of 1 if individuals report spending more than 1 hour on their choice of Medicare Part D plans.

Finally, our sixth outcome is the probability that an individual chooses one of the three plans with the highest algorithmic score (“expert recommended” plans). These plans appeared as the first three plans in each treatment plans, but were highlighted for the participants only in the “Information + Expert” treatment arm.

4 Effects of the Intervention

4.1 Effect of Offering Algorithmic Decision Support

We start by estimating the effect of offering algorithmic decision support to participants using an intent-to-treat analysis (ITT). Let the assignment to experimental arm “Information Only” be denoted with an indicator variable I , while the assignment to experimental arm “Information + Expert” be denoted with an indicator variable E . For outcome variable Y_i , we estimate:

$$Y_i = \alpha_0 + \alpha_1 E_i + \alpha_2 I_i + \delta X_i + \epsilon_i \tag{1}$$

⁴This does not strictly hold true for the interacted switch measure. The difference in costs is measured based on plans that individuals reported at the baseline and endline. While some individuals report different plans and hence we compute a non-zero change in cost, we do not count these individuals as switchers in the more conservative interacted switching measure.

The coefficients of interest, α_1 and α_2 , measure whether being randomized into treatment arm “Information + Expert” or treatment arm “Information Only,” on average, changed the outcomes of interest. We consider heterogeneity in the treatment effects in detail below. X_i is a vector of individual observable characteristics that were analyzed in Sections 3.2 and 3.3. As these controls are to a large extent balanced through randomization, their primary role is to reduce the standard errors of the point estimates, as our sample size is relatively small. As we would expect, including or excluding control variables has very little effect on the point estimates.

Table 6 reports the ITT results for all six outcome variables of interest. For each regression we report the mean of the outcome variable in the control group, as well as the estimates of α_1 and α_2 . The number of observations across different outcome variables varies, since some individuals did not fill out all questions in the endline survey. We report the mean and the standard deviation of each outcome variable for the entire sample at the bottom of the table. The last row of the table reports the p-value of an F-test for whether the estimates of α_1 and α_2 differ from each other.

Column (1) presents the results for the measure of plan switching. We find that a high fraction of people - 28 percent as compared to the national switching rate of approximately 10 percent (Polyakova, 2016) - in our control group switched plans, suggesting that the trial already attracted relatively active shoppers (we explore this point in more detail in Section 5). Being randomized to the “Information Only” treatment increased the switching rate by 1 percentage point, but the estimate is noisy and we cannot reject that the effect of offering decision-making support was zero in this arm. Being randomized into the “Information + Expert” intervention, in contrast, increased the switching probability by 8 percentage points. The estimate is precise and we can reject a zero effect of offering algorithmic decision support at the 95 percent confidence level. The estimate is also economically significant, suggesting a increase in the switching rate of 28 percent relative to the control group. The difference between two intervention arms is economically large and statistically significant at 10% level.

In column (2) we observe that only 39 percent of individuals in the control arm report being very satisfied with the choice process of the Part D plans. Individuals assigned to “Information Only” arm report a 6 percentage point higher satisfaction rate, although we again cannot reject that the effect was zero. Satisfaction with the choice process appears to be improved more by the algorithmic recommendation intervention, with 8 percentage points more people (or 20 percent more) report being very satisfied with the process in the “Information + Expert” arm. As we observe in Column (3), satisfaction with the choice process does not appear to result in a decreased feeling of decision conflict. We cannot reject zero effects of the intervention at any conventional levels on the degree of decision conflict.

In column (4) we note that 75 percent of individuals in the control arm spent more than an hour choosing their Medicare Part D plan. We estimate that individuals assigned to the “Information + Expert” arm were 8 percentage points more likely to spend more than one hour choosing their Part D plan, and yet they also report more satisfaction with the decision process. This suggests that individuals may be willing to invest time in their choices if this time can be spent productively.

In column (5) we effectively get a measure of the return on time investment, estimating how much individuals

save in expected costs by changing their plans. We observe a \$112 reduction in expected costs at the baseline in the control group.⁵ This is consistent with both a relatively high switching rate in the control group, as well as with either selection or “reminder” effects in the control group, as we discuss below. Relative to the control group, savings are much more pronounced in the group exposed to the “Information + Expert” treatment. Individuals choose plans that have \$94 larger decline in expected cost - in other words, individuals choose plans that in expectation would save them 80% more. The point estimate for the “Information Only” arm suggests a magnitude of the effect that is about half the size, but we cannot reject that the effect is zero.

Finally, in column (6) we measure the likelihood that consumers reported choosing one of the “expert recommended” plans - i.e. plans with the highest algorithmic scores. These plans were relatively popular among consumers prior to the intervention.⁶ 39 percent of individuals in the control group enrolled in (what would have been) an expert recommended plan for them in 2017. The probability of enrolling in an expert-recommended plan increased 5 to 6 percentage points (15 percent) from the exposure to either treatment. Both coefficients, however, are noisy and we cannot reject a zero effect at 95% confidence level. The effect appears to be slightly more pronounced in the “Information + Expert” arm, both in absolute levels and in statistical precision, relative to the “Information Only” arm.

4.2 Effect of Using Algorithmic Decision Support

We next proceed to estimate the average causal effect of using the decision support software among treatment compliers. We estimate a 2SLS model, in which being randomized into either the “Information Only” or “Information + Expert” arms serve as instruments for using the corresponding version of software. Let the use of “Information Only” version of software be denoted with an indicator variable UI , while using the software in “Information + Expert” arm be denoted with an indicator variable UE . For outcome variable Y_i (same outcomes as above), we estimate:

$$Y_i = \gamma_0 + \gamma_1 UE_i + \gamma_2 UI_i + \phi_0 X_i + \epsilon_{i0} \quad (2)$$

$$UE_i = \pi_{10} + \pi_{11} E_i + \pi_{12} I_i + \phi_1 X_i + \epsilon_{i1} \quad (3)$$

$$UI_i = \pi_{20} + \pi_{21} E_i + \pi_{22} I_i + \phi_2 X_i + \epsilon_{i2} \quad (4)$$

Here, variables UE_i and UI_i take the value of 1 if the individual logged-in into the software, which we can track through individualized login information linked to encoded patient id. π_{11} , π_{12} , π_{21} , and π_{22} measure the take-up of the software across experimental arms. The coefficients of interest are the 2SLS estimates of γ_1 and γ_2 . These coefficients measure the impact of using the algorithmic decision support (or at least logging into the software) on individuals’ behavior.

⁵As the cost estimates are extremely skewed, we trim the regression to only include cost changes between the 1st and 99th percentile of changes.

⁶This decreases our power to detect changes in the probability of enrolling in an expert recommended plan. To increase power, in this regression specification we control for the whether individuals were enrolled in a plan that would have been one of three top plans for the at the baseline

Table 7 reports the first stage coefficients and the 2SLS estimates for the six outcome variables of interest. As we observe in Column (1), the take up of the software tool conditional on being randomized into a treatment arm was very high. Being randomized into “Information + Expert” arm increased the take up of the “expert recommendation” version of software from zero (by construction, individuals in the control arm did not have access to the software) to 81 percent. Similarly, being randomized into “Information Only” arm increased the take up of the individualized information version of the software from zero to 80 percent.

The estimates reported in columns (2) to (8) of Table 7 are the same as coefficients in Table 6, but re-scaled by the first stage (with the exception of column 6). Hence, the direction of the effects is the same and we observe only a change in the magnitude that reflects the imperfect treatment take up. The LATE (or in this case, treatment on the treated) estimates suggest that using the algorithmic expert software increases plan switching rates by 10 percentage points relative to the baseline rate of 28 percent in the control group (36% increase). We do not observe a significant increase in average switching rates relative to the control group from the use of the “individualized information” version of the software (column 2). As in the intent-to-treat results, we see a notable increase in the probability that individuals using software report being more likely to be highly satisfied with the choice process. The effect of the “expert recommendation” version of the software has a slightly more pronounced effect, increasing the subjective choice process satisfaction by 23 percent (column 3). We also observe that individuals that use software are 10 percentage points more likely to spend more than an hour on choosing their Part D plans (column 5).

In column 6, we introduce a new outcome - an index that measures the intensity of software use. The index outcome measure comprises five underlying outcomes: whether the consumer viewed explanation buttons within the software, how often these buttons were clicked, the total number of actions within the software, the number of actions per login, and the total time that the individual spent within the software tool as measured by clicks and login behavior. The index is defined to be an unweighted average of z-scores of each component outcome, where all of the outcomes are oriented such that a positive sign implies more intensive website use. The z-scores are in turn computed by subtracting the mean in “Information Only” group and dividing by the standard deviation in “Information Only” group. All underlying outcomes can only be defined for individuals that were assigned to either of the treatment arms; they are further only defined for individuals that used the software. Hence, for this measure we can only compare individuals that used the “Information Only” version of software to those who used the “Information + Expert” version, excluding all individuals in the control arm. We estimate that individuals assigned to the “Information + Expert” version of the software were using the decision-support tool much more intensely than those in the “Information Only” group. This is an interesting finding, as it suggests that algorithmic advice serves as a complement to human decision making, inducing more consumer engagement (Agrawal et al., 2019).

The reduction in expected costs as reported in column 7 becomes more pronounced relative to the ITT results, as we now focus on compliers, who we know were more likely to switch their plans. Individuals using “Information + Expert” version of the software choose a plan with \$116 lower expected cost. As the reduction in the cost is driven by individuals that actually switch plans, we analyzed the reduction of costs among switchers

further. Among those who switch in the “Information + Expert” arm, expected spending in the plan chosen post-intervention was \$595 lower than if the consumer stayed in the incumbent plan. For the “Information Only” arm, the decline was \$485. In both treatment arms, consumers were 7 percentage points (imprecisely measured) more likely to have one (of three) “expert-recommended” plans relative to the control arm.

Overall, we conclude that being exposed to the algorithmic recommendation increased the propensity of consumers to shop for plans and decreased their costs. Being exposed to individualized information had effects in the same qualitative direction but quantitatively, the effects on switching and costs were less pronounced, although, except for plan switching, we cannot formally reject the equivalence of the effects. Using both versions of the decision support software increased consumers’ search time, but also their subjective satisfaction with the process. The intensity (including time) of software use was significantly more pronounced among consumers exposed to the treatment arm with the “algorithmic expert advice” feature.

Two issues are important to keep in mind when interpreting our LATE estimates. First, we feel reasonably confident in interpreting these results as treatment on the treated, since we do not believe that individuals outside of treatment groups had access to the treatment software. The trial enrollment process insured that no two individuals in the same household were participating in the experiment. In addition, PAMF patients who participated in the experiment are not concentrated in a small geographic area and are unlikely to be acquainted. Hence, it is not very likely that the control group including always-takers - people who used the software even though they were not randomized to a treatment arm. Second, in theory, being randomized into a treatment arm could affect individuals in ways other than through software use or through information about Part D within the software. One plausible alternative hypothesis is that being randomized to a treatment arm reminded people about the prescription drugs they were taking (after those were imported from the electronic medical records). This reminder could have changed individual behaviors relative to the control group, who were informed about the possibility of seeing their drug lists in the electronic medical records, but were not shown their list of drugs explicitly. While this channel may affect our estimates of behavioral responses when comparing the treated individuals to the control group, this difference does not exist in the comparison of “Information Only” and “Information + Expert” treatments - individuals were shown their drugs in both treatment arms. Hence, the differences in behavior between treatment arms provide compelling estimates for the effects of exposure to different types of information rather than other channels.

4.3 Heterogeneity of Treatment Effects

We next examine heterogeneity in the estimated treatment effects. We focus on the intent-to-treat analysis, as being offered decision support algorithms is most relevant for policy. Given the small sample size of the intervention, estimates of treatment effects among subgroups in our population are unlikely to be precise; however, the estimates may still be informative about the degree and direction of heterogeneity.

We use generalized random forests to systematically analyze heterogeneity in treatment effects in the sample of people enrolled in the trial along the same ten observable demographic and health-related characteristics that we examined in Sections 3.2 and 3.3. These include: age, gender, race, marital status, income at the census

tract level, share of college-educated individuals at the census tract level, the number of prescription drugs, the Charlson score, the use of online patient records, and the intensity of its use as measured by message strands. The generalized random forest methods are discussed in detail in the emerging literature on the use of machine learning methods for causal inference (Wager and Athey, 2018; Athey et al., 2019; Davis and Heller, 2017; Hitsch and Misra, 2018; Asher et al., 2018). The basic idea is to create - under the assumption of unconfoundedness - a decision tree that identifies splits in observable demographics in a way that maximizes differences in the treatment effect along the split line. As there are many possible permutations of such trees, the random forest algorithm bootstraps the tree, generating a more robust prediction (aggregated through an adaptive weighting function across individual draws of trees) of treatment effects as a function of observables.

For each of our six outcomes we use the estimates of the generalized random forest algorithm to compute the predicted treatment effect (separately for the “Information Only” and “Information + Expert”) for each individual that participated in the trial, based on observable characteristics. We observe pronounced heterogeneity in point estimates of the predicted treatment effects across individuals. While we cannot formally reject a uniform treatment effect due to the limited number of individuals in-sample, two suggestive patterns emerge when comparing the two treatment arms in the context of plan switching outcome.⁷ For the “Information Only” arm, the treatment appears to have induced some consumers to be more likely to stay in their incumbent plans. This evidence of asymmetry in treatment effects may explain the small average intent to treat effect that we estimated in Table 6, as this average combines a positive treatment effect for some individuals and a negative treatment effect for others. “Information + Expert” recommendation treatment effects have little mass at zero, with the majority of individuals having a positive treatment effect on plan switching from algorithmic expert recommendation.

In addition to providing a sense of the degree of heterogeneity in treatment effects in the estimation sample, the same method allows us to predict treatment effects out of sample. Table 8 summarizes the results of this prediction exercise. We compute a treatment effect for each individual that was invited to participate in the trial (i.e. for 29,451 individuals). We split these individuals into five equal-size groups, by quintiles of the treatment effect distribution. Within each quintile, we then report the average value of the observed demographic. This allows us to qualitatively characterize the outcome of the generalized random forest procedure. We observe several clear patterns. Treatment effects are greater among older individuals; they are also more pronounced among women and non-white beneficiaries. The starkest differences emerge on the IT affinity dimension. Individuals who are less likely to have ever used the electronic medical records and use it much less intensively have much larger estimated behavioral responses to the intervention. While this analysis provides initial insights into what types of people were likely to enroll in a trial providing access to a web-based tool, we return to this

⁷To test the quality of our causal forest estimates and our ability to formally reject the null of no heterogeneity in the treatment effects, we implement a calibration test motivated by Chernozhukov et al. (2018) as described in detail in Athey and Wager (forthcoming). The calibration test produces two coefficients. The first coefficient (α) tests the accuracy of the average predictions produced by the generalized random forest, while the second (β) is a measure of the quality of the estimates of treatment heterogeneity. If $\alpha = 1$, then we can generally say our forest is well-calibrated, while if β is statistically significant and positive, we are able to reject the null of no heterogeneity. Our estimates of α are close to 1 for both treatment arms, although the estimate is very noisy for the “Information Only” arm - $\alpha=0.98$ (s.e. 0.45) for “Information + Expert” arm and $\alpha=1.04$ (s.e. 2.6) for “Information Only” arm. These results suggest that our forest is well-calibrated. For both arms our estimates of β s, however, are too noisy to interpret, suggesting that we cannot formally reject the null of no heterogeneity in treatment effects.

idea in more detail in the context of selection discussion in the next Section.

5 Selection

We use three empirical strategies to quantify the importance of selection in the take up of the decision support software. Understanding who chose to take up the intervention is crucial for interpreting the external validity of the experiment and for understanding how to target policies offering consumers algorithmic decision-making support tools.

5.1 Lower Bound of Selection

Our first strategy exploits the simple idea that the IV estimates in our setting correct selection bias. Hence, the difference between the IV and OLS estimates are informative about the degree of selection into the use of software among those who signed up for the trial. OLS estimates of the effects of using software on outcomes among those enrolled in the trial capture both treatment and selection effects in the treatment group relative to the control group. For example, trial participants who are more active shoppers and are considering changing their plan even in the absence of our intervention are likely to disproportionately select into using the software. To quantify this selection bias, we first estimate the following OLS relationship:

$$Y_i = \tau_0 + \tau_1 UE_i + \tau_2 UI_i + \kappa_0 X_i + \epsilon_i \quad (5)$$

In this equation, τ_1 and τ_2 are biased estimates of the treatment effects, as the exposure to software conditional on being randomized into a treatment arm is determined by the individual’s decision to take up the intervention, which, for example, could be correlated with the latent propensity of switching plans. We use this omitted variable bias to learn about the magnitude of selection. Panel A of Table 9 reports OLS results for our six outcome variables of interest. These estimates of the effects of the intervention are much larger than the IV estimates for both treatment arms. We estimate that in the “Information + Expert” arm, using the software was associated with a 17 percentage point increase (9 percent in “Information Only” arm) in the probability of switching plans (column 1). For both arms, this is 7 percentage points larger than the IV estimates (reported again in the second section of Panel A in the same table for convenience). We conclude that out of 17 percentage point increase (9 for the “Information Only” treatment arm) in switching rates as suggested by OLS, 10 percentage points (2 for “Information Only”) was the treatment effect and 7 percentage points was selection. In other words, individuals that took up the experimental software were inherently 7 percentage points more likely to switch their plans than those individuals who were assigned to treatment arms, but chose not to use the software (or those assigned to the control arm).

The comparison of OLS and IV estimates in column (2) suggests little selection on the satisfaction with the Part D shopping process, although the emerging direction of selection appears to be negative. In other words, individuals that were inherently less likely to be satisfied with the selection process were possibly more likely to

take up the decision support tool. We observe only very noisy estimates of differences in decision conflict score (column 3) and no selection on the time search dimension (column 4).

Individuals choosing to use the software appear to be those who would have experienced greater savings absent the intervention (column 5) and would have been more likely to choose one of the three expert recommended plans (column 6).

Overall, the evidence is consistent with the idea that, even among those who chose to participate in the trial, individuals who actively accessed algorithmic advice were inherently more likely to revise their plan choices towards lower cost plans absent the intervention. The magnitude of selective take up is substantial relative to the treatment effect, especially with respect to the inherent propensity to switch plans. Notably, these results are estimated relative to the average outcome among those assigned to the control group. In this exercise, outcomes in the control group serve as a control for selection into the intervention. The average outcome of the control group could itself, however, are potentially comprised of both selection and treatment effects. In particular, simply entering the study website could have generated a “reminder effect.” On the other hand, the reminder effect may be either very small or non-existent suggesting that selection into software is even larger than the difference between the OLS and the IV estimates. In this sense, this difference between the OLS and the IV represents a lower bound for the degree of selection captured in the OLS estimate. We next estimate the upper bound.

5.2 Upper Bound of Selection

We take advantage of our two-step experimental design that allows us to directly observe the selection mechanism in the control group to estimate the upper bound of the selection effect. Consumers who were randomized to the control group did not know that they were in the control group until they logged into the experimental website. Since we can observe who in the control group logged into the website, we can measure the difference in outcomes between those who chose to access the software and those who did not. As discussed above, this difference represents a combination of selection and treatment effects in the control group. Under the assumption that the reminder screen did not generate a treatment effect among those individuals in the control group who chose to log in, the difference between those who did and those who did not log in to the website in the control group would represent the pure selection effect. Since in practice some of this difference may be due to the treatment effect of the reminder screen, this comparison gives us the upper bound of selection. Given the low impact of generic reminders that has been found in the broader literature, we believe the selection interpretation plays an important role (Ericson et al., 2017), but the difference likely includes some of both. To measure this upper bound, We estimate the following OLS regression among the control group individuals only:

$$Y_i = \xi_1 LOGIN_i + \xi_2 X_i + \epsilon_i \tag{6}$$

Panel B of table 9 reports the estimates. Individuals that logged into the software website - before knowing whether they were assigned to the treatment or the control arm - were 21 percentage points more likely to

switch plans than those that did not log in (column 1). They also had a 15 percentage point higher probability of choosing an expert recommended plan (column 6), and were saving \$169 in expected total cost of their Part D plan (column 5). We did not observe differences in the choice process satisfaction, decision conflict score, or search time (columns 2, 3, 4).

Our results on the selective take-up of intervention software indicate that caution is warranted when interpreting the positive effects of algorithmic decision support software for the development of policy. While offering people algorithmic decision support affects their choices, it is also much more likely to attract “active shoppers” and thus could be a poorly targeted policy instrument for rolling out in the general population. Without additional targeted interventions encouraging those who are not active shoppers to use such a tool, algorithms may not reach those who would benefit most from them.

5.3 Selection on Treatment Effects

We next examine the importance of self selection into decision-support tools by comparing the likely benefits of algorithmic recommendations among those who enrolled in the trial relative to those who did not.

We use the results of the generalized random forest algorithm - as discussed in 4.3 - to predict (intent-to-treat) treatment effects on the full sample of individuals who were originally invited to participate in the experiment. Recall that we originally invited 29,451 individuals to participate in the study and that 4% took up the invitation and were randomized into three arms. While we do not have survey data for the original 29,451 individuals, we observe their administrative records which we used to analyze the selection into the experiment on observables in Table 1. We now use the same observables to predict treatment effects (for each treatment type) among all invited individuals. In Table 8 and Section 4.3 we have already characterized the heterogeneity in treatment effects. Here we examine whether there were systematic differences in predicted treatment effects between those who decided to participate in the experiment and those who did not.

Table 10 reports the results of a regression of the predicted treatment effect for each outcome of interest on an indicator that takes a value of one if the individual was *not* among those who participated in the experiment. We estimate these regressions separately for “Information + Expert” (Panel A) and “Information Only” (Panel B) treatment arms. We observe pronounced selection on treatment effects. Individuals who did not participate in the trial would have overall responded *more* to either type of intervention than those individuals who did. Individuals that chose not to participate would have been 3-4 percentage points more likely to switch plans than those who did participate (column 1). They would have also been slightly more satisfied with the choice process as the result of using the tool (column 2), would have saved approximately 10% more under the algorithmic recommendation treatment (column 5), and would have been up to 50% more likely to enroll in one of the expert recommended plans (column 6). At the same time, they would have been less likely to increase their search time beyond one hour as compared to those who did choose to participate in the experiment (column 4).

Figure 4 documents the non-linearity of the experimental take up as a function of predicted treatment effects. This figure plots the take-up rate of the experiment for each ventile of the predicted treatment effect. For the probability of switching plans, we observe that the take-up rate declines sharply with the estimated treatment

effect, suggesting that individuals that would have responded most to the software intervention (in terms of switching their plans), were least likely to participate in the experiment. The same holds true for cost savings (those who would have saved more are less likely to participate), although the pattern is slightly noisier.

5.4 Implications of Selection

Overall, our analyses provide strong evidence of selective take-up. As in many other settings, we document that more sophisticated consumers are more likely to shop for coverage and demand more information, in this case, in the form of accessing information tools. A main contribution of our study is to demonstrate that the expected benefits of algorithmic recommendations, in particular, appear to have the greatest benefits for those who are least likely to use them.

Our analyses provide some insight into the potential barriers to greater use of algorithms in the setting we study. We demonstrate empirically that the expected benefits of personalized information are negatively correlated with participation in the trial. Because consumers access information when the expected benefits of information exceed the costs of obtaining it (Stigler, 1961), our finding implies that, for those with relatively high estimated treatment effects, either the expected benefits of accessing information were low or the costs of search were high. In our empirical work, we find some evidence supporting the potential importance of the costs of search. In particular, those with relatively large estimated treatment effects had the lowest rates of EMR use, suggesting relatively low familiarity with information technology. In other words, consumers may have rationally chosen not to enroll in the trial because they correctly expected that for them the costs to them of using the on-line tool exceeded the benefit. Alternatively, consumers for whom the estimated treatment effects were largest may have systematically underestimated the benefits of information. For example, those with high estimated treatment effects may have underestimated the likelihood that an alternative plan would have covered their drugs more generously. A different version of this mechanism is that consumers observe the expected benefits with noise. If the variance in perceived benefits increases with the mean, then it is more likely that consumers with high benefits on average will underestimate their expected benefit relative to the cost. This interpretation is consistent with evidence on noise in consumer beliefs that we present in the next section. In sum, our results suggest that offering decision-support software without additional targeting efforts or even a requirement to go through algorithmic decision-support when enrolling into a plan, is unlikely to reach individuals who would have benefited most from having access to such software. We speculate that reducing the noise in perceived benefits of algorithmic support (for example, through mailings that first highlight individualized potential savings, as in Kling et al., 2012, and encourage consumers to seek out algorithmic support), may provide a way to improve targeting.

6 Theory and Welfare

In this section we develop a simple theoretical framework that allows us to conceptually differentiate between two related ideas: *information* versus (non-strategic) *advice*. While the former allows consumers to learn about

product features, the latter also helps consumers interpret these features. We map this framework into our trial data. We use the estimates to quantify the welfare effects of offering consumers an algorithm that provides them with information and/or advice.⁸

We argue that consumer choices may deviate from a full-information benchmark due to two conceptually distinct reasons. First, consumers may have imperfect information about the features of the products among which they are choosing. Second, consumers may have only noisy signals about the mapping of each product feature into utility. Uncertainty about utility weights is one way to capture the idea that consumers may not understand contract features even if they have perfect information about these features (Bhargava et al., 2017). Allowing for two sources of uncertainty implies that there are two types of information a consumer may acquire: (i) information about features that allows the consumer to *learn* about the good, and (ii) advice about the valuation of features that allows the consumer to *interpret* the value of the good. This conceptual distinction between information and non-strategic advice is related to several ideas in the prior literature. For example, Çelen et al. (2010) asked, in a laboratory experiment, whether the subjects would like to get advice or the underlying information. Further, a literature on advertising has made a related distinction between informative versus persuasive advertising (Braithwaite, 1928; Akerberg, 2001). The general idea that external advice and information may alter preferences relates closely to the rich literature on persuasion (DellaVigna and Gentzkow, 2010), except in our setting advice transmission is non-strategic. The idea that consumers are unsure about their payoffs or may overvalue more salient characteristics of goods is common in the models with rational inattention (e.g., Steiner et al., 2017; Sallee, 2014; Matejka and McKay, 2015), salience and context-dependent choice (Bordalo et al., 2013), as well as experience goods (Riordan, 1986). In these frameworks, however, one usually does not distinguish between the uncertainty about product features and the uncertainty about the relative importance of these features for utility, which we argue is an important distinction in our setting.

6.1 Model

Consider consumer i who faces a choice set J of insurance contracts. Each contract j is characterized by a vector of characteristics ϕ_{ij} that can be individual-specific. Let $U_{ij}(\phi_{ij}; \beta_i)$ be the utility that consumer i gets from choosing plan j with characteristics ϕ_{ij} . This utility depends on plan characteristics ϕ_{ij} and the parameters of the utility function for consumer i , β_i . Under perfect information about both ϕ_{ij} and β_i , consumer i chooses contract j^* such that U_{ij^*} is greater than U_{ij} for all other $j \in J$.

In practice, the consumer may only have a noisy prior about the characteristics of each plan. In other words, the elements of ϕ_{ij} may be observed imprecisely. Further, the consumer may be uncertain about how to aggregate the elements of ϕ_{ij} into utility-relevant objects. In other words, the elements of β_i may be observed imprecisely. For example, figuring out which drugs are covered by any given insurance plan is costly, as that

⁸Our goal here is to provide *one* potential framework that allows us to think about the systematic differences in behavior we observe across experimental arms. Alternative explanations for the differences in behavior exist and are equally plausible. For example, the differences in consumer behavior when they face the “expert” recommendation could stem from the framing effects, anchoring, or other ways of “coherent arbitrariness” in which the presentation of expert scores and highlighting of plans as “recommended” could change individual choice behavior and hence the preferences that we estimate (John G. Lynch, 1985; Ariely et al., 2003; DellaVigna, 2009, 2018).

information is frequently complicated and difficult to find. At the same time, obtaining information about which drugs are covered by a plan - i.e. obtaining a document from an insurer that lists all covered drugs - may not resolve consumer's uncertainty about how to interpret this information and consequently how much utility weight to assign to this feature of the product.

Denote consumer beliefs about vectors ϕ_{ij} and β_i with $\tilde{\phi}_{ij}$ and $\tilde{\beta}_i$. The consumer maximizes her utility given these beliefs and chooses a plan \tilde{j} such that:

$$\tilde{j} = \operatorname{argmax}_j \tilde{\beta}_i \tilde{\phi}_{ij} \quad (7)$$

The welfare loss L from noisy beliefs is given by the differences in the underlying utility from plan j^* relative to plan \tilde{j} :

$$L = U_{i\tilde{j}} - U_{ij^*} \quad (8)$$

Let the wedge between beliefs about plan features and true features be ξ^ϕ , and the wedge between true utility weights and beliefs about weights be ξ^β . We can then re-write the decision utility as being (omitting individual-specific subscripts):

$$\tilde{U}_j = (\beta + \xi^\beta \beta)(\phi_j + \xi^\phi \phi_j) \quad (9)$$

Exposure to pure information about produce features can reduce the wedge in consumer beliefs about plan features, ξ^ϕ , but should not affect utility weights. Advice, on the other hand, is different from information, as it provides a way to interpret information in addition to information itself. We model non-strategic advice as a reduction in ξ^β , which improves consumer's signal about the mapping of features into utility. Let $1 - \kappa$ denote the "strength" of a decision-support intervention that exposes consumers to information or information and advice. κ measures the share of ξ^ϕ and ξ^β that remain despite the intervention. Consumer's decision utility with a decision support intervention then becomes:

$$\tilde{U}_j = \begin{cases} (\beta + \xi^\beta \beta)(\phi_j + \kappa \xi^\phi \phi_j) & \text{if exposed to information} \\ (\beta + \kappa \xi^\beta \beta)(\phi_j + \kappa \xi^\phi \phi_j) & \text{if exposed to information and advice} \end{cases} \quad (10)$$

where $\kappa \in [0, 1]$. If $\kappa = 0$, the decision support intervention completely eliminates the noise in beliefs, meaning that $\tilde{j} = j^*$ and $L = 0$. If $\kappa = 1$, the intervention has no effect on consumer beliefs and consumer choices.

To summarize, this simple framework provides us with a key basic insight. Any intervention aimed at helping consumers make choices can change their choices through two mechanisms: by either changing their beliefs about the features of the products, or by changing their utility weights for these features. The two mechanisms generate very different policy implications. If consumer choices are affected by noisy priors about how product features map into utility, then a policy of providing information about plan features will not generate any behavioral responses. In contrast, if consumers know exactly how to evaluate product features,

but have a hard time accessing that information, policies that improve information access may be effective. For example, because cost-sharing can be complex and vary by drug and plan, consumers may not have perfect knowledge of the cost-sharing features of their plans are. In contrast, they may be aware that their plan has a very high deductible, but not able to evaluate the implications of a high deductible for their utility. The distinction between the two mechanisms is of central practical relevance for complex financial products, where the knowledge of product features may not be enough for consumers to make informed decisions.

Our framework accommodates multiple types of consumer behaviors that have been documented in the literature. In particular, it offers a way to reconcile the divergent conclusions of two strains of work that have explored consumer choices in Medicare Part D specifically. The first set of papers (Abaluck and Gruber, 2011; Abaluck and Gruber, 2016) argues that consumers make choices that are inconsistent with rational decision-making. The second argues that consumers are behaving rationally and learn over time (Ketcham et al., 2012). Our framework demonstrates that both behaviors could in fact be taking place at the same time. The idea of choice inconsistencies in (Abaluck and Gruber, 2011; Abaluck and Gruber, 2016) can be thought of as a non-zero ξ^β - consumers observe deductibles, coverage in the gap, and other features of the plans, but have biased utility weights for these features. Ketcham et al. (2012); Ketcham et al. (2015), on the other hand, argue that consumer choices are improving over time. This could be true if original choices are affected by the noise in the knowledge about plan characteristics - ξ^ϕ - that decrease over time as consumers learn about product features. Learning about characteristics, however, doesn't preclude that the wedge in utility weights - ξ^β - and hence "inconsistent" choices continue to exist.

6.2 Estimation

Set-up The conceptual model outlined above can be directly mapped to an empirical discrete choice problem with random utility. We start with a standard discrete choice framework, in which consumer i is choosing a product j from the set of available products J . The consumer picks j that maximizes her decision utility that we empirically specify as follows:

$$u_{ij} = \beta_i \phi_{ij} + \epsilon_{ij} \tag{11}$$

Here, ϕ_{ij} is a vector of characteristics of product j that are allowed to be individual-specific. Vector β_i maps product characteristics into utility. An entry in vector β_i that multiplies a dollar-denominated feature, such as the expected out of pocket spending gives us the marginal utility of income that "translates" monetary objects into utils. This marginal utility of income can vary across individuals i . When re-normalized to the marginal utility of income, other entries in vector β_i , provide the measure of individual's willingness to pay for the corresponding product feature. ϵ_{ij} captures any consumer-product specific parts of utility that are not observable to the researcher, but are observable to the consumer and affect consumer choices.

In most applications, when estimating a discrete choice model of demand, researchers include product features ϕ_{ij} as they are observed to the researcher, which is usually an "objective" measure of these product features. This, however, may not be the ϕ_{ij} that enters consumer decision-making if consumers observe ϕ_{ij}

with some noise. Further, when estimating β_i from revealed preferences for product features, we would typically capture the utility weights that entered the decision utility function. The weights in the utility function, however, reflect only consumer’s current information set and may be a noisy signal of the underlying welfare-relevant weights.

Following the argument in Section 6.1, consider the following reformulation of the standard utility specification that includes noise in features and utility weights. Adding multiplicative friction terms to Equation 11, we get:

$$u_{ij} = (\beta_i + \xi_i^\beta \beta_i)(\phi_{ij} + \xi_i^\phi \phi_{ij}) + \epsilon_{ij} \quad (12)$$

or re-arranging,

$$u_{ij} = (1 + \xi_i^\beta)(1 + \xi_i^\phi)\beta_i\phi_{ij} + \epsilon_{ij} \quad (13)$$

Is it possible to separate ξ_i^β and ξ_i^ϕ empirically? Conceptually, to do that we need an intervention that plausibly affects only ξ_i^β or ξ_i^ϕ . We argue that our two treatment arms provide us exactly with that type of variation. Arm “Information Only” provides individuals with personalized information about expected costs, CMS plan quality rating, and plan brands. Hence, in this arm, individuals receive information about expected out of pocket costs, but they do not receive any further guidance about how to combine different plan features into a utility function. In other words, for individuals enrolled in the “Information Only” arm, the treatment affects only ξ_i^ϕ .

Individuals in the “Information + Expert” arm receive the same information as those in “Information Only” arm, but they also receive the personalized expert scores and a recommendation to choose one of three plans with the highest expert scores. The expert score does not provide *additional* information about plan features, as it is a combination of out of pocket cost prediction and the star rating. However, it provides a suggestion to the consumer of how to weight plan features by combining the personalized cost estimate with the plan-level star rating into a one-dimensional metric. Hence, we can interpret arm “Information + Expert” as changing both the information about features and the utility weights that consumers ought to place on these features, i.e. changing both ξ_i^ϕ and ξ_i^β . This implies that by comparing the choice behavior across control arm and treatment arm “Information Only,” and then treatment arm “Information + Expert” we can quantify the presence of ξ_i^ϕ and ξ_i^β in consumer’s decision utility.

To illustrate our approach, consider an example with $\kappa = 0$, so that an informational intervention completely removes noise terms. The decision utility of individual i from choosing plan j in the control arm is then given by:

$$u_{ij} = (1 + \xi_i^\beta)(1 + \xi_i^\phi)\beta_i\phi_{ij} + \epsilon_{ij} \quad (14)$$

While for individual i choosing plan j in the “Information Only” arm, utility is:

$$u_{ij} = (1 + \xi_i^\beta)\beta_i\phi_{ij} + \epsilon_{ij} \quad (15)$$

And similarly, utility for an individual in the “Information + Expert” arm becomes:

$$u_{ij} = \beta_i \phi_{ij} + \epsilon_{ij} \quad (16)$$

The latter corresponds to the standard discrete choice utility that we started with in Equation 11, as it “restores” the case of complete information.

We can now proceed to estimate Equations 14 to 16. Our goal is to estimate β_i , ξ_i^β and ξ_i^ϕ . We achieve this by estimating how revealed preferences for ϕ_{ij} vary across experimental arms. Assuming that, by the virtue of randomization, there should be no latent differences in utility weights across the experimental arms (i.e. no differences in underlying β_i), we will attribute any variation in estimated preferences across arms to differences in beliefs.⁹ Comparing utility weight estimates between the “Information Only” and “Information + Expert” arms allows us to measure how much of the behavioral change in response to the intervention is coming from changes in ξ_i^β versus changes in ξ_i^ϕ .

We estimate the following specification for consumer i in year t (recall that we observe consumer plan choices at the baseline and endline of the experiment, which spans two years of choices):

$$u_{ijt} = \tilde{\beta}_i \phi_{ijt} + \epsilon_{ijt}, \quad \epsilon_{ijt} \sim \text{iid EV Type I} \quad (17)$$

We allow for unobserved heterogeneity in consumer preferences that is assumed to have a normal distribution. We also assume that the part of utility not observed by the researcher is distributed iid with Type 1 extreme value distribution. We let ϕ_{ij} include the expected total cost of the plan, CMS star rating and indicators for one of three most popular insurer brands. This is the full set of plan features that study participants observe on the main page of the experimental software in the two treatment arms (see Figure 1). This information is also in principle readily available to participants in the control arm from the government-run online Medicare Part D calculator. To increase the precision of our estimates given the small sample size, we pool observations from all three experimental arms and years 2016 and 2017 choices of plans. The specification then becomes:

$$u_{ijt} = \mu_1 \text{Cost}_{ijt} + \mu_2 \text{CMSStar}_{jt} + \mu_3 \text{AARP}_{jt} + \mu_4 \text{Humana}_{jt} + \mu_5 \text{Silverscript}_{jt} + \epsilon_{ijt} \quad (18)$$

$$\mu_n = \psi_n + \lambda_n I + \eta_n E \quad \forall n \in [1, 5] \quad (19)$$

Estimating this model allows us to quantify the wedges in beliefs for each plan feature. First, we aggregate our estimates to derive one revealed preference parameter for each plan feature in each experimental arm. Consider the expected costs. For this feature, the estimate of revealed preferences in the control arm $\hat{\beta}_1^C$ is equal to $\hat{\psi}_1$. For treatment arm “Information Only”, $\hat{\beta}_1^I = \hat{\psi}_1 + \hat{\lambda}_1$. For treatment arm “Information + Expert,” $\hat{\beta}_1^E = \hat{\psi}_1 + \hat{\eta}_1$.

Now we map the three estimates of revealed preferences in each arm into the underlying model parameters.

⁹We verify this assumption empirically by estimating the differences in revealed preference parameters at the baseline, prior to the intervention. We find no differences in estimated $\beta_{i;t}$ s across experimental arms.

For control arm:

$$\hat{\beta}_1^C = (1 + \xi_i^\beta)(1 + \xi_i^\phi)\beta_i \quad (20)$$

For treatment arm “Information Only”:

$$\hat{\beta}_1^I = (1 + \xi_i^\beta)\beta_i \quad (21)$$

And finally, for treatment arm “Information + Expert”:

$$\hat{\beta}_1^E = \beta_i \quad (22)$$

These are three equations in three unknowns that give us β , ξ_i^β , and ξ_i^ϕ once we have $\hat{\beta}_1^C$, $\hat{\beta}_1^I$, and $\hat{\beta}_1^E$.

Estimation results Panel A of Table 11 reports model estimates. Column (1) reports ψ^1 , τ^1 , and η^1 - coefficients on the “cost” feature of the plans. We estimate τ^1 to be negative and large (relative to the control group) in absolute value, suggesting that “Information Only” intervention makes consumers appear more sensitive to costs. The change in the sensitivity to cost is substantially less pronounced under the “Information + Expert” treatment. Column (2) in turn suggests that consumers become more sensitive to CMS star rating under “Information Only” intervention, while columns (3) to (5) suggest that the intervention changes consumers’ ranking of brands. We observe similar patterns for the “Information + Expert” arm, except that it makes AARP-branded plans appear less desirable to consumers.

To interpret these estimates in the context of our conceptual framework, we substitute the point estimates into Equations 20 to 22 to get (for the cost feature as an example):

$$-0.13 = (1 + \xi_i^\beta)(1 + \xi_i^\phi)\beta_i \quad (23)$$

$$-0.21 = (1 + \xi_i^\beta)\beta_i \quad (24)$$

$$-0.17 = \beta_i \quad (25)$$

It follows that $1 + \xi_i^\beta = 1.27$ and $1 + \xi_i^\phi = 0.62$, as we report in Panel B.1. This in turn suggests that consumers tend to underestimate the expected costs of plans, but have a higher willingness to pay for each \$100 reduction in the out of pocket costs than they would under full information. Panel B of Table 11 also reports similar computations for other plan features. Except for the Silverscript brand indicator, we find a similar qualitative pattern across all features - that consumers have a negative ξ_i^ϕ , underestimating the features of available plans (for the brand indicators, this can be interpreted as noisy signal about the probability that any given plan has a particular brand), and yet have a positive ξ_i^β , suggesting a higher - than under full information - willingness to pay for each feature.

In Panel B.2 we examine how our results change when we assume that the exposure to either treatment arm only “corrects” 80% of noise in beliefs. The magnitude of noise estimates change accordingly, but provide very

similar qualitative take away. For example, we still find that individuals underestimate the total costs they are likely to face in a plan, and overestimate how the costs map into the utility function.

Taken together these estimates illustrate that changes in utility weights that could be impacted by advice may have a substantial effect on consumers’ behavioral response. We also conclude that the experimental data is consistent with a hypothesis that consumers may have noisy priors about both the product features and their interpretation, or utility weights, on these features.

6.3 Welfare

We next use our estimates to shed light on how the provision of information may affect consumer welfare. To accomplish this, we simulate consumer choices and the corresponding welfare loss function from equation 8 under four scenarios. Recall that we defined the welfare loss as the difference between the “true” utility the consumer experiences from the plan chosen under noisy beliefs (\tilde{j}) and the plan that would have been chosen under perfect information (j^*).

The first scenario simulates consumer choices using the preferences as estimated under the “Information + Expert” treatment arm. Put differently, this scenario switches off both $1 + \xi_i^\beta$ and $1 + \xi_i^\phi$. We take consumer choices and their utility in this scenario as our normative benchmark, U_{ij^*} . In the other three simulation scenarios we switch on $1 + \xi_i^\beta$, or $1 + \xi_i^\phi$, or both, respectively. Each of these simulations with wedges in beliefs switched on gives us a \tilde{j} , allowing us to compute $U_{i\tilde{j}}$ and $L = U_{i\tilde{j}} - U_{ij^*}$. In essence, this exercise measures how much $1 + \xi_i^\beta$ and $1 + \xi_i^\phi$ alter the ordinal ranking of plans in utility terms. If consumers have noisy beliefs, but these beliefs lead them to choose the same product as they would have under perfectly informed beliefs, then there is no welfare loss from the noise in beliefs and informational interventions would be an unnecessary cost.

Table 12 reports our simulation results. We simulate our model for all 29,451 individuals who were invited to participate in the trial. In Panel A we report several moments of the distribution of surplus loss (L) from relying on “noisy” beliefs. On average, the welfare loss is relatively modest. We estimate the average loss to vary between \$48 to \$68 depending on which wedges in beliefs we allow for. This represents a 4.1% to 6.8% loss in utility. The relative loss is the highest when we allow for wedges in both types of beliefs, which is intuitive, as that increases the likelihood that the wedges change the ordinal ranking of plans.

The modest average loss masks a substantial amount of heterogeneity in how much the noise in beliefs about product characteristics or the mapping of characteristics into the utility function affects consumer utility. For half of the consumers, the noise in the utility function does not in fact lead to any surplus losses. These consumers end up choosing the same plan across all specifications of the utility function. For some consumers, however, the noise in beliefs lead to significant welfare losses, both in absolute and relative terms. For these consumers, noise in beliefs lead them to choose a plan that is far from the optimum. At the 95th percentile of the distribution, individuals that choose plans according to preferences as estimated from the control group (i.e. those that allow for both sources of noise in beliefs), would lose nearly \$300 or 15% of their benchmark normative utility. This is a significant loss, equal to nearly six monthly premiums.

This analysis suggests that while for many consumers misconceptions in their beliefs about plan features

or the mapping of features into the utility function is inconsequential, some consumers experience significant losses and choose sub-optimal plans when they don't have perfect information. An cost-effective informational intervention would want to target consumers that experience the highest welfare losses. Panel B of Table 12, however, reveals that offering consumers a decision-support software - i.e. self-targeting - would not lead to optimal targeting. Among consumers who were offered to participate in the trial, those who we predict would have benefited the most, were not more likely (and if anything were slightly less likely) to participate. This finding is consistent with our earlier results on selection outlined in Section 5 and once again underscores the challenge of targeting an informational intervention in this domain.

7 Conclusion

Personalized decision support software providing consumers with varying levels of decision autonomy is increasingly prevalent in many markets. In theory, delegating consumer decisions to individualized predictive algorithms could significantly alter consumption patterns, especially in complex decision environments. The rise of algorithms could thus substantially alter market allocations across a range of settings. In practice, we know little about how consumers interact with algorithms or which type of consumers choose to engage in such interactions in the first place. Much of the research on algorithms to date has focused on examining the potential for strategic or unintended biases of algorithmic decision support, while little evidence exists on consumer responses to this new technology.

In this paper, we provide novel evidence from a randomized-controlled study in which older adults were offered individualized decision support software for the choice of prescription drug insurance plans. The treated groups received two versions of the software. One version offered a more intensive intervention by providing consumers with "expert" machine-generated one-dimensional scores for each choice option. The other treated group received personalized information about the expected total cost in each plan and a plan-level quality assessment, but was not given the expert score summarizing this information. The control group was offered a reminder.

We draw three main conclusions from our experimental results. First, exposure to the decision support tool changed consumer behavior. More specifically, providing (individualized) information coupled with a one-dimensional algorithmic recommendation significantly increased the probability of plan switching, the time spent on the choice process, the expected cost-savings and self-reported satisfaction with the choice process. While providing individuals with individualized information without the one-dimensional algorithmic recommendation moved the outcomes in a similar direction, the magnitudes of the effects were less pronounced economically and statistically.

Second, there is strong selection into the use of decision support software. We document two types of selection. We find that individuals who actually used the software conditional on having access to it were inherently more active shoppers who likely would have changed their plan and chosen a lower cost plan without an intervention. Quantitatively, this selection effect is close in magnitude to the treatment effect, allowing us

to conclude that there is strong complementarity in the willingness to shop actively for financial products and the interest in decision support algorithms. Further, we find that individuals whom we predict would have responded most strongly to the treatment intervention, were the least likely to enroll in the trial. While the findings of strong selection do not invalidate the idea that intuitive tools with clear, simplified, algorithmic recommendations could improve choices if rolled out in a general population, they do suggest that a policy of merely offering algorithmic recommendations within a software tool is unlikely to reach those who would respond the most to them. Hence, more targeted and intensive interventions may be required for populations who are unlikely to take-up algorithmic advice but are likely to benefit from it.

Finally, using a simple model of consumer decision-making that offers a lens through which to interpret our findings, we find that the behavioral responses that we observe in the data are driven by both the (i) updating of consumers' signals about the features of the products, and (ii) adjustments in consumers' utility weights - or mapping - of these features into utility. The noise in consumer beliefs leads to relatively small welfare losses, on average; however, a small set of consumers experience significant losses in utility of up to 15%. The distinction between consumer's misconception about the characteristics of a financial object versus the mapping of object features into utility is important for interpreting the findings on consumer "mistakes" in a variety of financial settings. This distinction is also crucial for policy-making in the realm of algorithmic advice. Existing algorithmic recommendations not only allow consumers to learn about product features, but usually also aim to change how consumers interpret the value of these features. Our results indicate that the interpretation channel is quantitatively important in the setting we examine. While the ability of algorithms to change individual preferences creates opportunities to improve consumer choices, it also raises concerns over the possibility that algorithms may influence decision-making in ways that have poorly understood or unintended consequence for consumers. Algorithms may generate biases in decision making, either strategic or inadvertent, that have important downstream consequences. Because consumers are responsive to algorithmic recommendations, it will be increasingly important not only to understand how consumers respond to algorithms but also the implications of those responses for societal welfare.

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Figures and Tables

Figure 1: User Interface by Experimental Arm

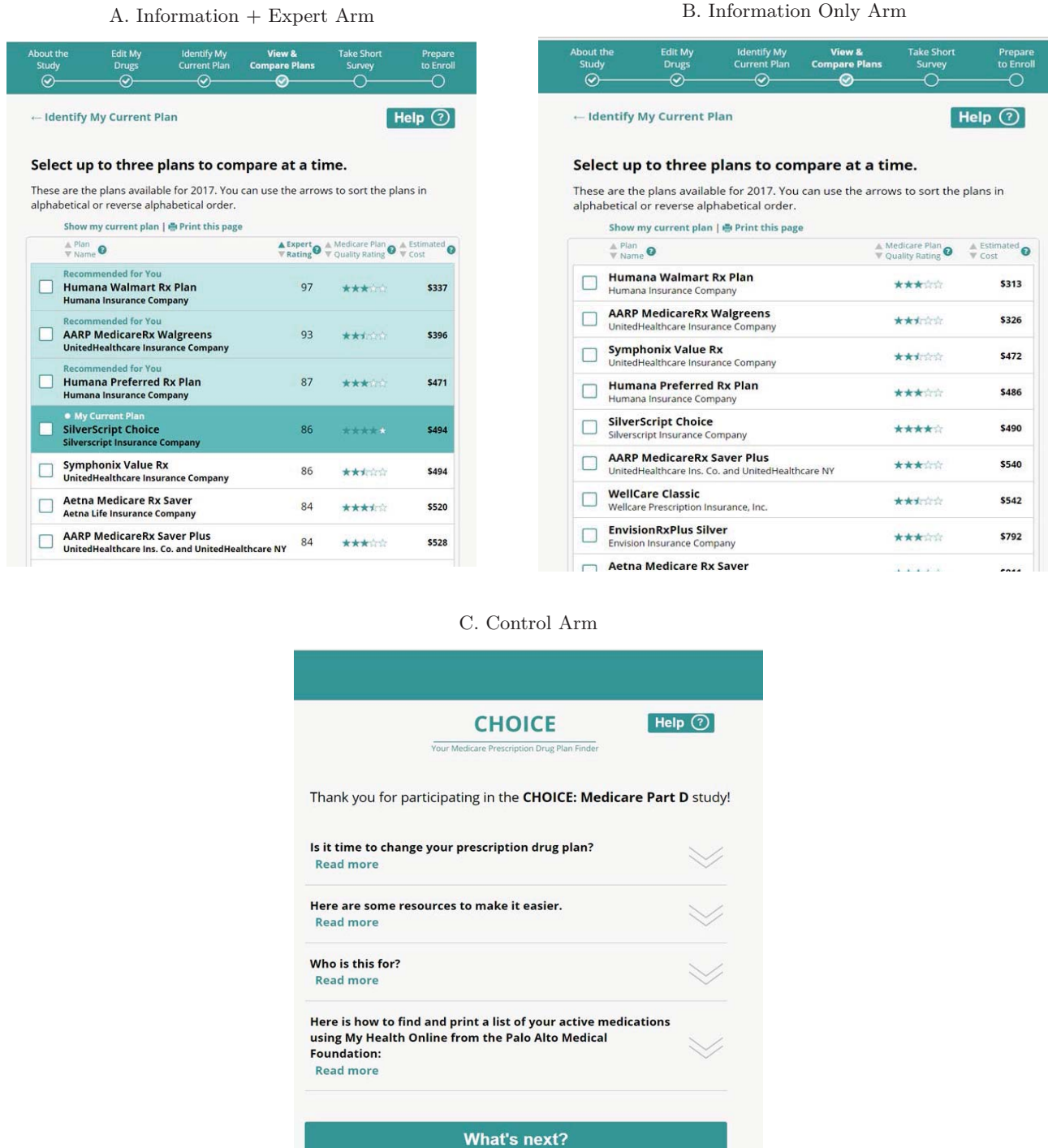


Figure 2: Experimental Design

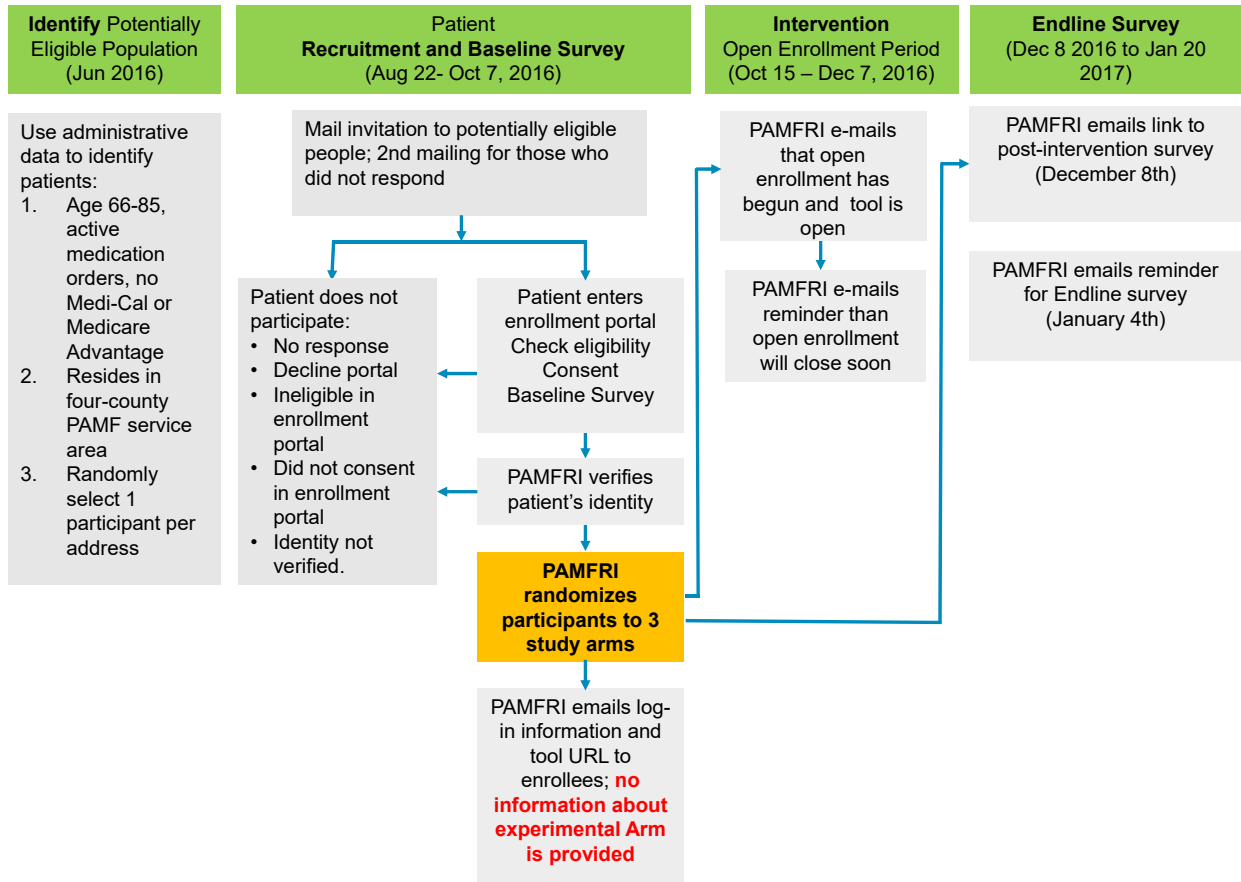
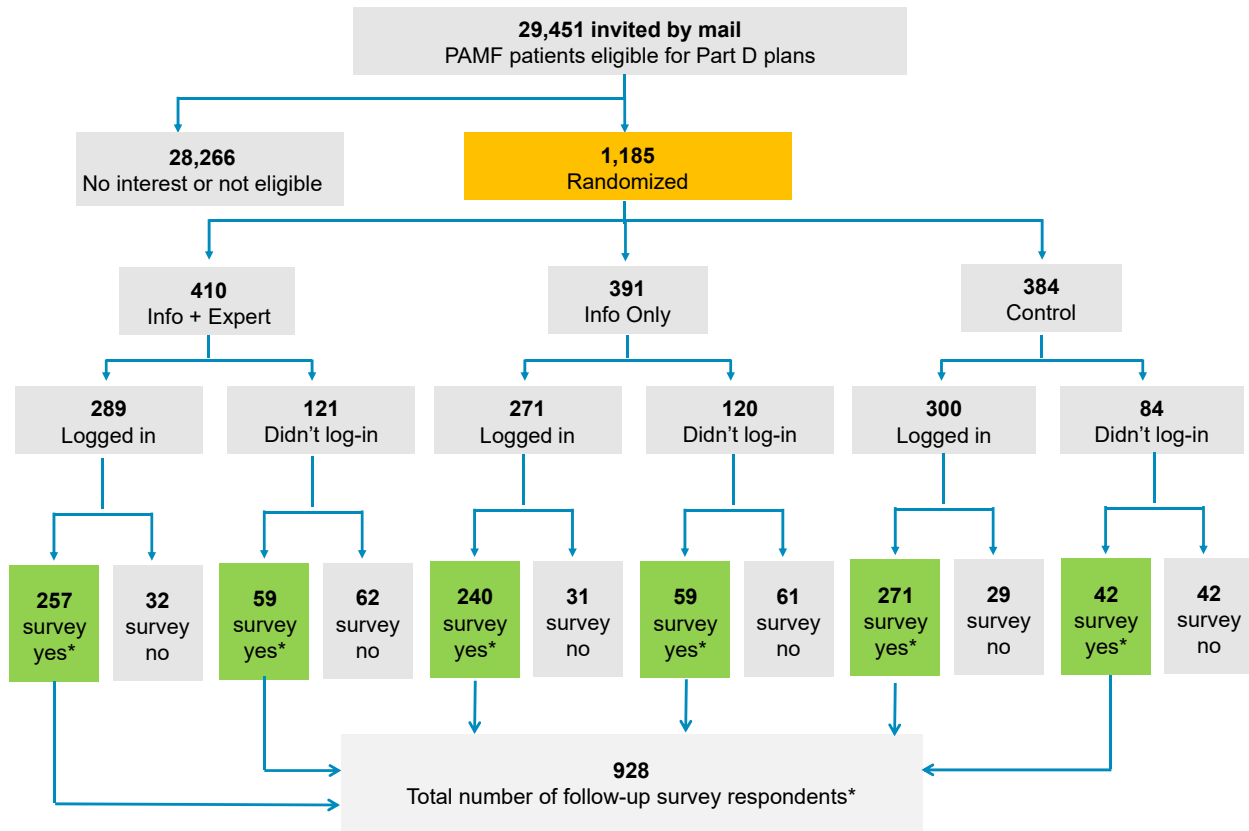
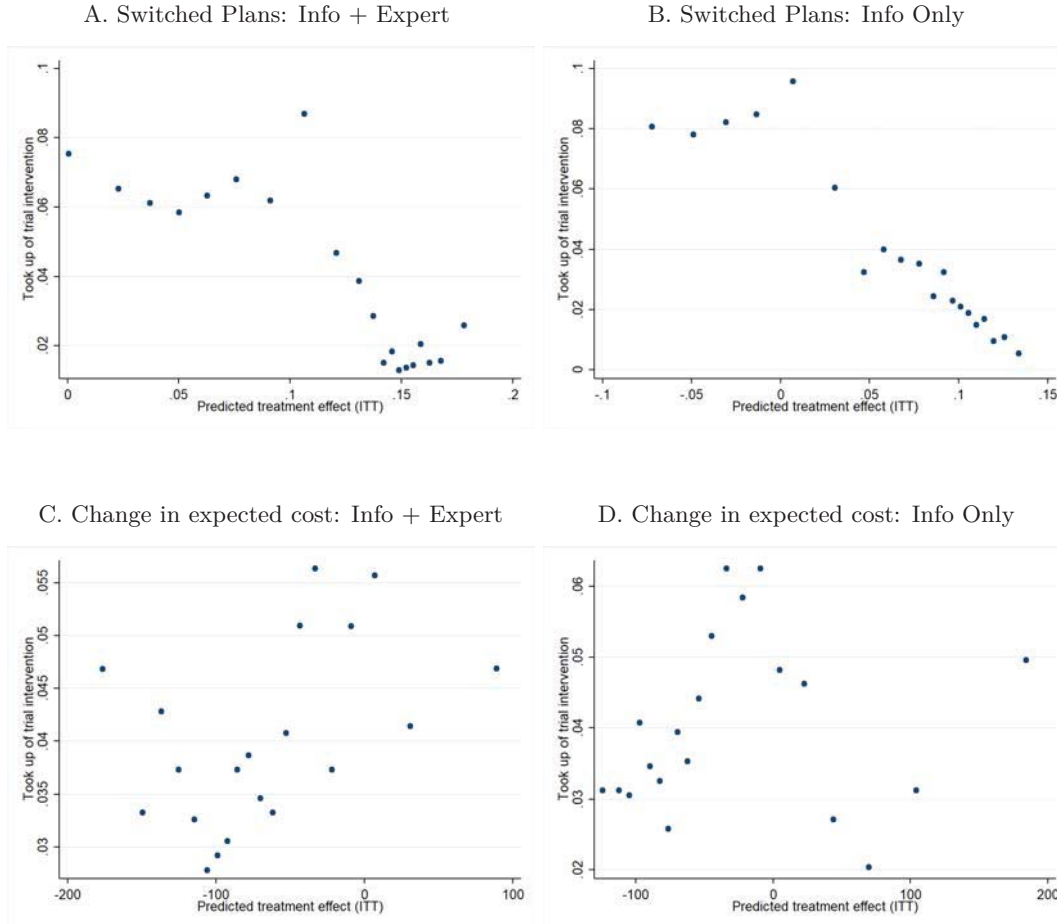


Figure 3: Enrollment Flow



* Number of participants that responded to at least one survey question by pre-specified cutoff date

Figure 4: Take-up of Experiment by Predicted Treatment Effect



The figures plot the relationship between the probability of participating in the experiment and predicted treatment effects in the full sample of 29,451 individuals that were invited to participate. For these individuals we observe the demographics that are recorded in administrative data, allowing us to estimate treatment effects for this sample. Individual-level treatment effects of offering decision-support software are estimated using the generalized random forest (GRF) algorithm (Wager and Athey, 2018) as described in the text. Panels A and C report the results for “Information + Expert” arm; Panels B and D for “Information Only” arm. Panels A and B plot the probability of signing up for the experiment as a function of treatment effects for the outcome that is an indicator for whether an individual changed plans (outcome in column 1 of Table 6). Panels C and D plot the probability of signing up for the experiment as a function of predicted treatment effects for the change in expected total cost of the plan (outcome in column 5 of Table 6). Each figure is a binned scatterplot, where the outcome on the y-axis is computed within each ventile-sized bin of the treatment effect recorded on the x-axis.

Table 1: Selection into Experiment

	Age	Female	Non-White [‡]	Married	Income, \$'000 [†]	Share College [†]	Number Drugs	Charlson Score	Any EMR Use [§]	Intensity of EMR Use ^{§~}
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Randomized	-1.68*** (0.14)	-0.04** (0.01)	-0.13*** (0.01)	0.07*** (0.01)	5.83*** (1.34)	0.04*** (0.01)	0.08 (0.09)	-0.16*** (0.04)	0.27*** (0.01)	3.74*** (0.23)
No. of Obs.	29451	29451	29451	29451	29451	29451	29451	29451	29451	29451
Mean of Dep. Var.	73.96	0.54	0.35	0.54	106.81	0.54	4.45	1.16	0.69	3.30
Std. Dev. Of Dep. Var.	5.21	0.50	0.48	0.50	45.85	0.20	3.17	1.53	0.46	6.01

Table shows the relationship between baseline demographic characteristics of individuals and their take-up of the offer to participate in the experiment. 29,451 individuals were invited to participate. 1,185 entered the on-line enrollment portal, verified that they were eligible to participate, participated in a pre-enrollment survey and authenticated their identity. These individuals were randomized across three experimental arms. In columns (1) through (10) we report the results of separate regressions of each baseline demographic characteristic as the dependent variable on the indicator variable for whether an individual was a part of the 1,185 people that were randomized across arms. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

‡ Non-white includes "other" and missing responses

† Computed at census tract level

§ Measured within 3 years prior to the intervention

~ Number of strands of electronic conversations

Table 2: Randomization - Balance on Observables

	Age	Female	Non-White [‡]	Married	Income, \$'000 [†]	Share College [†]	Number Drugs	Charlson Score	Any EMR Use [§]	Intensity of EMR Use ^{§~}
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Information + Expert	-0.68* (0.33)	-0.04 (0.04)	-0.03 (0.03)	0.06 (0.03)	-1.29 (3.23)	0.01 (0.01)	0.18 (0.23)	0.12 (0.10)	0.00 (0.02)	1.28* (0.55)
Information Only	-0.70* (0.33)	-0.04 (0.04)	0.00 (0.03)	0.04 (0.04)	-3.57 (3.30)	-0.01 (0.01)	-0.00 (0.21)	0.01 (0.10)	0.01 (0.01)	0.91 (0.51)
Mean of Dep. Var. in Control	72.81	0.53	0.23	0.57	114.02	0.59	4.46	0.96	0.95	6.15
No. of Obs.	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185
Mean of Dep. Var.	72.35	0.50	0.22	0.60	112.40	0.59	4.52	1.01	0.96	6.89
Std. Dev. Of Dep. Var.	4.56	0.50	0.41	0.49	45.18	0.19	3.07	1.36	0.21	7.91
F-test across Arms, p-value	0.95	0.98	0.34	0.65	0.47	0.14	0.40	0.28	0.58	0.54

Table shows the relationship between baseline demographic characteristics of individuals who participated in the experiment (1,185 individuals) and their experimental arm assignment. Individuals were randomized across three experimental arms. In columns (1) through (10) we report the results of separate regressions of each baseline demographic characteristic as the dependent variable on two indicator variables representing the treatment arms, and a constant that captures the average value of the dependent variable in the control arm. We report the coefficients on the indicators for being randomized into treatment arms. The last row reports the F-test for the difference in the coefficients on the two treatment arm indicators. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

‡ Non-white includes "other" and missing responses

† Computed at census tract level

§ Measured within 3 years prior to the intervention

~ Number of strands of electronic conversations

Table 3: Attrition at Endline Survey

	Age (1)	Female (2)	Non-White [‡] (3)	Married (4)	Income, \$'000 [†] (5)	Share College [†] (6)	Number Drugs (7)	Charlson Score (8)	Any EMR Use [§] (9)	Intensity of EMR Use ^{§~} (10)
Responded to endline survey	-0.32 (0.32)	0.00 (0.04)	-0.09** (0.03)	0.03 (0.03)	3.32 (3.26)	0.04* (0.01)	-0.16 (0.22)	0.04 (0.09)	0.03 (0.02)	0.57 (0.55)
No. of Obs.	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185
Mean of Dep. Var.	72.35	0.50	0.22	0.60	112.40	0.59	4.52	1.01	0.96	6.89
Std. Dev. Of Dep. Var.	4.56	0.50	0.41	0.49	45.18	0.19	3.07	1.36	0.21	7.91

Table shows the relationship between baseline demographic characteristics of randomized individuals and their participation in the endline survey, defined as responding to at least one endline survey question by the pre-specified cutoff date. 1,185 individuals were invited to complete the endline survey; 928 individuals responded to at least one question by the cutoff date. In columns (1) through (10) we report the results of separate regressions of each baseline demographic characteristic as the dependent variable on the indicator variable for whether an individual responded to at least one endline survey question. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

‡ Non-white includes "other" and missing responses

† Computed at census tract level

§ Measured within 3 years prior to the intervention

~ Number of strands of electronic conversations

Table 4: Attrition at Endline Survey by Experimental Arm

	Age (1)	Female (2)	Non-White [‡] (3)	Married (4)	Income, \$'000 [†] (5)	Share College [†] (6)	Number Drugs (7)	Charlson Score (8)	Any EMR Use [§] (9)	Intensity of EMR Use ^{§~} (10)
Panel A: Information + Expert Recommendation Arm										
Responded to endline survey	-0.45 (0.54)	-0.06 (0.06)	-0.13* (0.05)	0.09 (0.06)	-1.95 (5.23)	0.00 (0.02)	-0.22 (0.36)	0.09 (0.13)	0.04 (0.03)	2.09* (0.90)
No. of Obs.	410	410	410	410	410	410	410	410	410	410
Mean of Dep. Var.	72.13	0.49	0.20	0.62	112.73	0.60	4.64	1.08	0.95	7.43
Std. Dev. Of Dep. Var.	4.58	0.50	0.40	0.48	43.79	0.19	3.22	1.39	0.21	9.25
Panel B: Information Only Arm										
Responded to endline survey	0.01 (0.50)	0.06 (0.06)	-0.13* (0.05)	0.06 (0.06)	7.08 (5.31)	0.04 (0.02)	0.10 (0.34)	-0.14 (0.17)	0.02 (0.03)	0.16 (1.00)
No. of Obs.	391	391	391	391	391	391	391	391	391	391
Mean of Dep. Var.	72.11	0.49	0.23	0.61	110.45	0.58	4.46	0.98	0.96	7.06
Std. Dev. Of Dep. Var.	4.41	0.50	0.42	0.49	44.76	0.19	2.77	1.34	0.19	8.07
Panel C: Control Arm										
Responded to endline survey	-0.70 (0.62)	-0.00 (0.07)	-0.02 (0.06)	-0.07 (0.06)	4.82 (6.65)	0.06* (0.03)	-0.38 (0.44)	0.20 (0.15)	0.04 (0.03)	-0.61 (0.95)
No. of Obs.	384	384	384	384	384	384	384	384	384	384
Mean of Dep. Var.	72.81	0.53	0.23	0.57	114.02	0.59	4.46	0.96	0.95	6.15
Std. Dev. Of Dep. Var.	4.67	0.50	0.42	0.50	47.08	0.19	3.19	1.34	0.22	5.93

Table shows the relationship between baseline demographic characteristics of randomized individuals and their participation in the endline survey, defined as responding to at least one endline survey question by the pre-specified cutoff date. The relationship is estimated separately by experimental arm in Panels A, B, and C. Out of 928 individuals that responded to at least one question in the endline survey by the cutoff date, 316 were in arm "Information + Expert"; 299 were in arm "Information Only"; and 313 were in the control arm. In columns (1) through (10) we report the results of separate regressions of each baseline demographic characteristic as the dependent variable on the indicator variable for whether an individual responded to at least one endline survey question. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

‡ Non-white includes "other" and missing responses

† Computed at census tract level

§ Measured within 3 years prior to the intervention

~ Number of strands of electronic conversations

Table 5: Balance on Observables at Endline Survey

	Responded to endline survey (1)	Age (2)	Female (3)	Non-White [‡] (4)	Married (5)	Income, \$'000 [†] (6)	Share College [†] (7)	Number Drugs (8)	Charlson Score (9)	Any EMR Use [§] (10)	Intensity of EMR Use ^{§~} (11)
Information + Expert	-0.04 (0.03)	-0.65 (0.37)	-0.06 (0.04)	-0.05 (0.03)	0.09* (0.04)	-2.62 (3.57)	-0.00 (0.01)	0.20 (0.26)	0.10 (0.11)	0.00 (0.02)	1.87** (0.63)
Information Only	-0.05 (0.03)	-0.57 (0.37)	-0.03 (0.04)	-0.03 (0.03)	0.07 (0.04)	-2.79 (3.67)	-0.01 (0.01)	0.10 (0.24)	-0.06 (0.11)	0.01 (0.02)	1.05 (0.55)
Mean of Dep. Var. in Control	0.82	72.68	0.53	0.22	0.55	114.91	0.60	4.39	1.00	0.96	6.04
No. of Obs.	1185	928	928	928	928	928	928	928	928	928	928
Mean of Dep. Var.	0.78	72.28	0.50	0.20	0.61	113.12	0.59	4.49	1.02	0.96	7.01
Std. Dev. Of Dep. Var.	0.41	4.57	0.50	0.40	0.49	44.73	0.18	3.07	1.40	0.19	7.97
F-test, p-value	0.84	0.82	0.50	0.40	0.55	0.96	0.51	0.67	0.16	0.76	0.26

Table shows the relationship between the probability of responding to the endline survey (column 1) and baseline demographic characteristics (columns 2-11) of individuals who responded to at least one question on the endline survey and their experimental arm assignment. Individuals were randomized across three experimental arms. In column (1) we report the results of a regression of an indicator variable for whether an individual responded to the endline survey on the indicator variables for experimental arms. In columns (2) through (11) we report the results of separate regressions of each baseline demographic characteristic as the dependent variable on the indicators for experimental arms, and a constant that captures the average value of the dependent variable in the control arm. We report the coefficients on the indicators for being randomized into treatment arms. The last row reports the F-test for the difference in the coefficients on the two treatment arm indicators. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

‡ Non-white includes "other" and missing responses

† Computed at census tract level

§ Measured within 3 years prior to the intervention

~ Number of strands of electronic conversations

Table 6: Intent-to-Treat Effect of Offering Algorithmic Decision Support

	Switched plans (1)	Very satisfied w/ process (2)	Decision conflict score (3)	Search time > 1 hour (4)	Change in expected OOP cost (5)	Chose an "expert" plan (6)
Information + Expert	0.08* (0.04)	0.08* (0.04)	-0.14 (1.86)	0.08* (0.03)	-94.27* (38.84)	0.06 (0.03)
Information Only	0.01 (0.04)	0.06 (0.04)	-1.46 (1.87)	0.06 (0.03)	-58.67 (36.22)	0.05 (0.03)
Mean of Dep. Var. in Control	0.28	0.39	21.06	0.75	-111.55	0.39
No. of Obs.	896	928	883	918	880	898
Mean of Dep. Var.	0.31	0.44	20.51	0.80	-160.23	0.41
Std. Dev. Of Dep. Var.	0.46	0.50	22.22	0.40	462.67	0.49
F-test between arms (p-value)	0.10	0.60	0.48	0.58	0.34	0.83

Table shows the intent to treat estimates. Columns (1) through (6) report the results of separate regressions for six outcome variables as reported by participants in the endline survey. We report coefficients of a regression of the dependent variable as specified in the column headers on the indicator variables for whether an individual was assigned to one of the two treatment arms, as well as control variables. The dependent variables are defined as follows. Column (1) uses a variable that interacts the response to the question (in endline survey) of whether the consumer switched her plan with a variable that was constructed by comparing which plans individuals reported having in the baseline and endline surveys. Column (2) outcome is an indicator for whether the individual chose "very satisfied" on a 5-point scale satisfaction with the choice process question. Column (3) dependent variable is a decision conflict score constructed from underlying responses as described in the manuscript. Column (4) is a self-reported assessment of how much time the individual spent choosing a Medicare Part D Plan. Column (5) measures the savings in expected out of pocket costs between the plan that the individual had before the trial and the plan chosen after the intervention. This column restricts the regression to observations with cost changes within the 1st and 99th percentile of the distribution of cost change as this variable is highly skewed. Column (6) dependent variable is an indicator that take a value of one if the individual choose one of the plans with top 3 algorithmic expert scores in the endline survey. All regressions include the following controls: age, indicator for being female, non-white, married; median household income in census tract, percent of college graduates in census tract, count of prescription drugs in electronic medical records, Charlson score, indicator for using electronic medical records, number of message strands in electronic medical record system. In column 6 we in addition control for the baseline value of the outcome variable to reduce the noise. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

Table 7: Treatment-on-the-Treated Effect of Algorithmic Decision Support

	Used software (1)	Switched plans (2)	Very satisfied w/ process (3)	Decision conflict score (4)	Search time > 1 hour (5)	Index: software use intensity [†] (6)	Change in expected OOP cost (7)	Chose an "expert" plan (8)
Information + Expert	0.81*** (0.02)	0.10* (0.05)	0.10* (0.05)	-0.18 (2.27)	0.10* (0.04)	0.14* (0.07)	-115.98* (47.06)	0.07 (0.04)
Information Only	0.80*** (0.02)	0.02 (0.05)	0.08 (0.05)	-1.82 (2.32)	0.08 (0.04)	- 0.00	-73.11 (44.66)	0.07 (0.04)
Mean of Dep. Var. in Control	0.00	0.28	0.39	21.06	0.75	-	-111.55	0.39
No. of Obs.	928	896	928	883	918	497	880	898
Mean of Dep. Var.	0.54	0.31	0.44	20.51	0.80	0.08	-160.23	0.41
Std. Dev. Of Dep. Var.	0.50	0.46	0.50	22.22	0.40	0.79	462.67	0.49
F-test between arms (p-value)	0.74	0.10	0.62	0.47	0.59	-	0.35	0.84

Table shows the 2SLS estimates. Column (1) reports the first stage: difference in the probability of using the online tool by treatment arm assignment. By construction, individuals randomized into the control group had zero use of the software tool. The coefficients on the indicator variables for treatment arms thus measure compliance with assigned treatment. Columns (2) through (6) report the results of separate regressions for six outcome variables as reported by participants in the endline survey. We report coefficients of a regression of the dependent variable as specified in the column headers on the indicator variables for whether an individual was assigned to one of the two treatment arms, as well as control variables. The dependent variables are defined as follows. Column (2) uses a variable that interacts the response to the question (in endline survey) of whether the consumer switched her plan with a variable that was constructed by comparing which plans individuals reported having in the baseline and endline surveys. Column (3) outcome is an indicator for whether the individual chose "very satisfied" in a 5-point scale satisfaction with the choice process question. Column (4) dependent variable is a decision conflict score constructed from underlying responses as described in the manuscript. Column (5) is a self-reported assessment of how much time the individual spent choosing a Medicare Part D Plan. Column (6) is an index measure that combines the five outcomes: whether the consumer viewed explanation buttons within the software, how often these buttons were clicked, the total number of actions within the software, the number of actions per login, and the total time that the individual spent within the software tool. Column (7) measures the savings in expected out of pocket costs between the plan that the individual had before the trial and the plan chosen after the intervention. This column restricts the regression to observations with cost changes in between the 1st and 99th percentile of the cost change variables that is highly skewed. Column (8) dependent variable is an indicator that take a value of one if the individual choose one of the plans with top 3 algorithmic expert scores in the endline survey. All regressions include the following controls: age, indicator for being female, non-white, married; median household income in census tract, percent of college graduates in census tract, count of prescription drugs in electronic medical records, Charlson score, indicator for using electronic medical records, number of message strands in electronic medical record system. In column 6 we in addition control for the baseline value of the outcome variable to reduce the noise. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

[†] Comparison between "Information Only" and "Information + Expert," since the outcome is not defined for the control group that did not have access to the software

Table 8: Out-of-Sample Treatment Effect Heterogeneity - Plan Switching

Plan switch treatment effect quintile	Age (1)	Female (2)	Non-White‡ (3)	Married (4)	Income, \$'000† (5)	Share Colleget (6)	Number Drugs (7)	Charlson Score (8)	Any EMR Use§ (9)	Intensity of EMR Use§~ (10)
Panel A: Information + Expert Recommendation Arm										
1	72.77	0.51	0.27	0.61	89.64	0.47	3.86	1.06	0.99	4.07
2	73.32	0.53	0.28	0.60	121.48	0.62	5.20	1.20	0.99	6.39
3	73.30	0.50	0.36	0.61	110.09	0.53	3.99	1.27	0.67	3.06
4	75.02	0.55	0.42	0.48	104.66	0.52	4.25	1.23	0.42	1.10
5	75.38	0.60	0.40	0.37	108.17	0.58	4.93	1.02	0.40	1.88
Panel B: Information Only Arm										
1	73.88	0.51	0.24	0.60	111.78	0.58	5.41	1.41	0.99	8.70
2	74.14	0.56	0.31	0.66	145.65	0.68	5.09	1.16	0.83	5.97
3	73.15	0.56	0.39	0.55	113.78	0.59	2.91	0.59	0.67	1.05
4	73.96	0.56	0.38	0.46	87.89	0.50	3.40	0.78	0.55	0.53
5	74.66	0.50	0.41	0.41	74.93	0.38	5.41	1.85	0.43	0.25

Table shows the mean of baseline demographic characteristics of the full sample of individuals that were invited to participate in the trial (29,451 individuals), by the quintile of their predicted individual-level treatment effect (ITT; Arm Information + Expert in Panel A and Arm Information Only in Panel B) on the probability of switching plans. In columns (1) through (10) we report the within quintile average of each baseline demographic characteristic as recorded in column headers. The unit of observation is individuals.

‡ Non-white includes "other" and missing responses

† Computed at census tract level

§ Measured within 3 years prior to the intervention

~ Number of strands of electronic conversations

Table 9: Selection into Software Use Conditional on Trial Participation

	Switched plans (1)	Very satisfied w/ process (2)	Decision conflict score (3)	Search time > 1 hour (4)	Change in expected OOP cost (5)	Chose an "expert" plan (6)
Panel A: Lower bound of selection; OLS versus 2SLS						
OLS						
Information + Expert	0.17*** (0.04)	0.07 (0.04)	-1.68 (1.81)	0.10** (0.03)	-158.12*** (39.16)	0.11*** (0.03)
Information Only	0.09* (0.04)	0.06 (0.04)	-3.34 (1.84)	0.08* (0.03)	-91.72** (35.08)	0.08* (0.03)
2SLS (Treatment on the Treated)						
Information + Expert	0.10* (0.05)	0.10* (0.05)	-0.18 (2.27)	0.10* (0.04)	-115.98* (47.06)	0.07 (0.04)
Information Only	0.02 (0.05)	0.08 (0.05)	-1.82 (2.32)	0.08 (0.04)	-73.11 (44.66)	0.07 (0.04)
Implied Magnitude of Selection						
Magnitude of Selection - Arm A	0.07	-0.03	-1.50	0.00	-42.14	0.04
Magnitude of Selection - Arm B	0.07	-0.02	-1.52	0.00	-18.61	0.01
No. of Obs.	896	928	883	918	880	898
Mean of Dep. Var.	0.31	0.44	20.51	0.80	-160.23	0.41
Std. Dev. Of Dep. Var.	0.46	0.50	22.22	0.40	462.67	0.49
Panel B: Upper bound of selection: Outcomes among those who take up treatment in control						
Logged-in into trial web page	0.21*** (0.05)	-0.014 (0.09)	-4.53 (4.80)	0.12 (0.08)	-168.7** (64.20)	0.15** (0.06)
No. of Obs.	301	313	302	310	295	302
Mean of Dep. Var.	0.28	0.39	21.06	0.75	-111.55	0.39
Std. Dev. Of Dep. Var.	0.45	0.49	22.56	0.44	458.34	0.49

Table quantifies how much selection is present in the take-up of treatment. Panel A reports OLS estimates of the association between software use and outcomes. Software use is set to zero for the control group that is not given access to software. Columns (1) through (5) report the results of separate regressions for six outcome variables as reported by participants in the endline survey. We report coefficients of a regression of the dependent variable as specified in the column headers on the indicator variables for whether an individual used software as provided in each treatment arm, as well as control variables. The dependent variables are defined in the same way as in the main ITT and LATE result tables. We also repeat the results of 2SLS regressions to make the comparison convenient. The implied magnitude of selection in each arm is the difference between OLS and 2SLS coefficients. Panel B restricts the sample for individuals assigned to the control group. For these individuals, we report coefficients of a regression of the dependent variable as specified in the column headers and an indicator for whether an individual logged in the software page to receive the "control group" message that reminded individuals to choose their Part D plans, as well as control variables. All regressions include the following controls: age, indicator for being female, non-white, married; median household income in census tract, percent of college graduates in census tract, count of prescription drugs in electronic medical records, Charlson score, indicator for using electronic medical records, number of message strands in electronic medical record system. In column 6 we in addition control for the baseline value of the outcome variable to reduce the noise. The unit of observation is individuals. Standard errors in parentheses are robust to heteroskedasticity. * p<0.05; ** p<0.01; *** p<0.001.

Table 10: Selection into Trial Participation and Predicted Treatment Effects

	Switched plans (1)	Very satisfied w/ process (2)	Decision conflict score (3)	Search time > 1 hour (4)	Change in expected OOP cost (5)	Chose an "expert" plan (6)
Panel A: Information + Expert Treatment Effects						
Not randomized	0.03*** (0.00)	0.00* (0.00)	0.87*** (0.05)	-0.02*** (0.00)	-6.68** (2.03)	0.01*** (0.00)
Mean among randomized	0.09	0.05	0.82	0.08	-59.96	0.02
Std. dev. among randomized	0.05	0.04	1.61	0.07	68.85	0.06
No. of Obs.	29451	29451	29451	29451	29451	29451
Mean of Dep. Var.	0.11	0.05	1.66	0.07	-66.37	0.03
Std. Dev. Of Dep. Var.	0.05	0.03	1.59	0.07	63.86	0.05
Panel B: Information Only Treatment Effects						
Not randomized	0.04*** (0.00)	0.02*** (0.00)	0.08 (0.08)	-0.03*** (0.00)	-3.92 (2.33)	0.01*** (0.00)
Mean among randomized	0.02	0.05	-1.36	0.07	-24.00	0.03
Std. dev. among randomized	0.06	0.07	2.83	0.07	78.64	0.04
No. of Obs.	29451	29451	29451	29451	29451	29451
Mean of Dep. Var.	0.06	0.06	-1.28	0.05	-27.76	0.05
Std. Dev. Of Dep. Var.	0.06	0.06	2.56	0.07	78.74	0.03

Table shows the difference in predicted treatment effects between individuals who responded to the invitation to participate in the experiment and those who did not. Columns (1) through (6) report the results of separate regressions where the left hand side variable is the individual-level prediction of the treatment effect from "Information + Expert" intervention (Panel A) or "Information Only" intervention (Panel B). We report coefficients on the indicator variable for whether an individual was in the randomized sample. 29,451 individuals were invited to participate. 1,185 entered the on-line enrollment portal, verified that they were eligible to participate, participated in a pre-enrollment survey and authenticated their identity. These individuals were randomized across three experimental arms. Individual-level treatment effects for each treatment arm are computed based on the generalized random forest algorithm (Wager and Athey 2018) as described in the text. The GRF algorithm was estimated using ten observables about individuals that are available in PAMF's administrative data and can hence be observed for the full starting sample of 29,451 individuals. The unit of observation in the regressions is individuals. Standard errors in parentheses are robust to heteroskedasticity. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 11: Utility Model and Estimates of Noise in Beliefs

	OOP Cost	CMS Star Rating	AARP Brand	Humana Brand	Silverscript Brand
	(1)	(2)	(3)	(4)	(5)
Panel A - model estimates					
ψ (Control Arm)	-0.13 (0.01)	0.66 (0.10)	2.46 (0.08)	1.45 (0.08)	1.19 (0.12)
Interaction: λ (Info Only Arm)	-0.08 (0.02)	0.90 (0.25)	0.53 (0.23)	0.70 (0.24)	-0.10 (0.25)
Interaction: η (Info+Expert Arm)	-0.03 (0.01)	0.14 (0.21)	-0.38 (0.20)	0.36 (0.20)	-0.35 (0.25)
Panel B - estimates of noise					
Panel B.1 - assume treatment corrects 100% of noise					
Utility weight under algorithmic treatment	-0.17	0.80	2.08	1.81	0.84
Noise in beliefs about utility weight, $1+\xi^\beta$	1.27	1.95	1.44	1.19	1.29
Noise [‡] in beliefs about characteristic, $1+\xi^\phi$	0.62	0.42	0.82	0.67	1.09
Panel B.2 - assume treatment corrects 80% of noise					
Utility weight under algorithmic treatment	-0.17	0.70	1.93	1.86	0.76
Noise [‡] in beliefs about utility weight, $1+\xi^\beta$	1.37	2.56	1.62	1.25	1.39
Noise [‡] in beliefs about characteristic, $1+\xi^\phi$	0.57	0.37	0.79	0.62	1.12

Tables reports the estimates of empirical utility model and implied size of wedges in consumer's assessment of utility weights and product features. Panel A reports model. Each column corresponds to a plan feature included in the utility function. The model is restricted to plan features that consumers can observe on the first screen of experimental software. The model includes but we do not report a random coefficient on the OOP Cost parameter. Standard errors are reported in parentheses. Panel B translates coefficient estimates in Panel A into the estimates of the magnitude of noise wedges that can explain the differences in consumer choices across consumers that are exposed to treatment and consumers that are not exposed to treatment. Panel B.1 reports the estimates of wedges under the assumption that informational treatment completely eliminates the wedge in the perception of product features, and information + expert treatment completely eliminates the wedge in both the perception of product features and utility weights. In Panel B.2 we report the wedge estimates under the assumption that each treatment intervention eliminates only half of each wedge.

‡ Noise terms are assumed to be multiplicative relative to the underlying utility parameters, as in the following: $u_{ij} = (1 + \xi^\beta)\beta_i(1 + \xi^\phi)\varphi_{ij}$.

A noise in beliefs about utility weights > 1 , suggests that consumers put too much weight on the characteristic. A noise in beliefs about characteristics < 1 , suggests that consumers have a downward biased beliefs about the level of the characteristic or the probability that a particular product has a certain characteristic.

Table 12: Normative Implications of Noise in Beliefs

	Mean	5th percentile [‡]	25th percentile	50th percentile	75th percentile	95th percentile
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A - welfare loss (L), in \$/year^{**}						
Allow for $1+\xi^\beta$	48.0	0	0	0	57.6	237.6
as % of U_{ij}^*	4.1	0	0	0	2.4	10.7
Allow for $1+\xi^\phi$	68.1	0	0	0	92.4	259.0
as % of U_{ij}^*	4.8	0	0	0	3.9	11.6
Allow for both ($1+\xi^\beta$) and ($1+\xi^\phi$)	65.4	0	0	0	100.6	296.6
as % of U_{ij}^*	6.8	0	0	0	4.3	15.0
Panel B - probability of trial take-up						
Probability of trial participation	0.040	0.041	0.041	0.041	0.038	0.039

The table reports the outcomes of utility model simulations on the sample of all 29,451 individuals that were originally invited to participate in the trial. For each individual we compute the level of the utility function for each plan under four scenarios: (1) using "true" utility as implied by the estimates of utility parameters under algorithmic treatment; (2) allowing for the noise in beliefs about utility weights as estimated in the model; (3) allowing for the noise in the beliefs about product characteristics as estimated in the model; (4) allowing for both sources of noise. To compute utility, for each individual we draw one random draw of a random coefficient and add the term that captures unobserved part of utility (ε_{ij}) computed as an average of 100 random draws from Type II extreme value distribution for each individual. Each utility simulation generates a ranking of insurance plans. In Panel A, we report, for simulations 2, 3, and 4, how much consumers loose in "true" utility (as measured in simulation 1) when they choose a plan guided by plan ranking generated in simulations 2-4. Utility loss is reported in dollars. The dollar value is obtained by diving the utility value by the absolute value of the coefficient on the out of pocket cost as estimated for the "true" utility model. For each dollar-value of welfare loss, we also report the relative loss, as a percent of utility in simulation 1. For each simulation, we report the average loss or percent loss across the whole population (column 1), as well as the quintiles of the loss distribution (columns 2-6). Panel B reports the rate of trial participation for the whole sample (column 1), as well as within each moment of the loss distribution as specified in columns 2-6 from simulation #4 that allows for both wedges in beliefs.

‡ Percentiles computed across 29, 451 individuals that were invited to participate in the trial

** See equation (8) in the manuscript for the definition of the welfare loss function