Reports and Research

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February 21, 2019 Board Meeting

By Covered California

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CALIFORNIA STATE AUDITOR
HIGH RISK AUDIT REPORTS
AUDIT RECOMMENDATIONS STATUS LOG

Purpose:

The following tables identify California State Auditor (CSA) high risk audit reports regarding Covered California, CSA's recommendations to Covered California, and the status of each recommendation.

Report 2013-602: New High Risk Entity: Covered California Appears Ready to Operate California's First Statewide Health Insurance Exchange, but Critical Work and Some Concerns Remain (Date issued: July 18, 2013)

Recommendations to Covered California		
Number	**Recommendation**	**Status**
1	To provide as much public transparency as possible, Covered California's board should formally adopt a policy to retain confidentiality only for contracts, contract amendments, and payment rates that are necessary to protect Covered California's interests in future contract negotiations.	Fully Implemented
2	To comply with federal requirements, Covered California should develop a plan and procedures for monitoring, recertification, and decertification of qualified health plans.	Fully Implemented
3	To ensure the success of its outreach effort, Covered California should track the effect on enrollment figures of its planned outreach and marketing activities and of its assister program.	Fully Implemented
4	To ensure financial sustainability, Covered California should conduct regular reviews of enrollment, costs, and revenue and make prompt adjustments to its financial sustainability plan as necessary.	Superseded By Subsequent Report (**See 2015-605 #1 and #2**).

Report 2015-605: High Risk - Covered California: It Must Ensure Its Financial Sustainability Moving Forward, and Its Use of Sole-Source Contracts Needs Improvement (Date issued: February 16, 2016)

Recommendations to Covered California		
Number	**Recommendation**	**Status**
1	Covered California should continue to monitor its plan for financial sustainability and revise the plan accordingly as factors change. Further, it should complete a formal analysis of the adequacy of its reserve level by December 31, 2016, and update this analysis as needed, so that it is prepared if it does not meet its revenue projections and needs to increase its funding or decrease its expenditures to maintain financial solvency. This formal analysis should identify those contracts it could quickly eliminate, among other actions it would take, in the event of a shortfall in revenues.	Fully Implemented
2	Covered California should continue to regularly review its enrollment projections and update the projections as needed to help ensure its financial sustainability.	Fully Implemented
3	To comply with state law, Covered California should ensure that its staff comply with the changes to its recently-adopted procurement manual that incorporate contracting policies and procedures that are substantially similar to the provisions contained in the State Contracting Manual.	Fully Implemented
4	Before executing any sole-source contracts, Covered California should adequately document the necessity for using a noncompetitive process in its written justifications and, in doing so, demonstrate valid reasons for not competitively bidding the services.	Fully Implemented
5	Covered California should improve its project management of contracts to ensure that it allows adequate time so it can use the competitive bidding process as appropriate.	Fully Implemented

Recommendations to Covered California		
Number	**Recommendation**	**Status**
6	Covered California needs to develop a process by June 2016 to ensure that it accurately enters information regarding its contracts into its contract database.	Fully Implemented
7	To ensure that CalHEERS does not face delays and cost overruns in the implementation of planned releases, Covered California should immediately contract with an independent party for IV&V services to highlight and address potential risks going forward.	Fully Implemented

Report 2017-041: Recommendation Not Fully Implemented After One Year (Date issued: January 11, 2018)

No additional recommendations were provided in this report.

Report 2017-601: High Risk: The California State Auditor's Updated Assessment of High-Risk Issues the State and Select State Agencies Face (Date issued: January 18, 2018)

No additional recommendations were provided in this report.

Report 2018-041: Recommendations Not Fully Implemented After One Year (Date issued: January 11, 2019)

Covered California is no longer identified in the California State Auditor report of recommendations not fully implemented after one year.

February 19, 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 Patient Protection and Affordable Care Act; HHS
Notice of Benefit and Payment Parameters for 2020; CMS-9926-P (RIN 0938-AT37)

- Risk Adjustment Validation
- Premium Adjustment Methodology
- Drug Coverage and Formulary Standards

Dear Secretary Azar,

Covered California is submitting comments in response to the proposed regulations CMS-9926-P. The comments in this letter refer to proposed policies on Risk Adjustment Validation, Premium Adjustment Methodology and Drug Coverage/Formulary Standards. Covered California has also submitted comments on the proposed FFE user fee and as well as joined with the Executive Directors of all 13 state-based marketplace in submitting comments regarding automatic re-enrollment and stability in cost-sharing reduction funding.

Risk Adjustment Data Validation

The Affordable Care Act established the risk adjustment program to mitigate the impact of possible adverse selection in the individual and small group market and seeks to accomplish this by transferring funds from plans with lower-risk enrollees to plans with higher-risk enrollees. Risk adjustment is vitally important to maintaining stable individual and small group markets and those adjustments should be – as much as possible – reflections of the actual differences in the risk population between carriers.

One element to ensure as much accuracy as possible is the Risk Adjustment Data Validation Audit (RADV). Regulations have clarified that the state, or

Health and Human Services (HHS) on behalf of a state, may validate a statistically valid sample of risk adjustment data for all issuers on a yearly basis. The current RADV program begins with an initial audit of 200 enrollees performed by an independent auditor on behalf of the issuer. A second audit is then performed by HHS to verify the findings of the initial validation audit.

HHS is proposing several changes to the initial validation audit requirements and seeking comments on the RADV process. First, HHS is proposing to vary the initial sample size based on issuer characteristics such as issuer size and prior year Hierarchical Condition Categories (HCCs) failure rates by using the 2017 RADV results as an initial basis for determining 2019 initial validation audit sample sizes. Under this approach, HHS would increase the precision of initial validation audit samples above 200 enrollees for issuers with lower or higher than average HCC failure rates that are not precisely measured. For issuers with average HCC failure rates, the initial validation audit sample size would remain at 200 enrollees. Alternatively, HHS proposes to vary the initial sample size based only on the size of the issuer while continuing to use the proxy Medicare Advantage risk score error data for conducting precision analysis.

Covered California makes these comments in the context of serving a state with eleven active carriers and with hundreds of millions of dollars being transferred between carriers based on the underlying risk adjustment process and the adjustments made by RADV. These transfers must be as accurate and predictable as possible since the transfers impact underlying premiums, relative position of issuers in the market and – most importantly – provide necessary resources for issuers to assure adequate care is provided to consumers they cover based on the risk mix of their covered lives.

Importance of Risk Adjustment and RADV Done Right

Covered California strongly supports the need for RADV audits and risk adjustment transfers in order to have a fully functional risk adjustment process. An effective and accurate risk adjustment process is a vital component to ensuring that the individual market functions well, and that health plans are not discouraged from participating because: (1) the risk adjustment process does not accurately and fairly represent the actual relative risk and costs associated with that risk among plans; and (2) uncertainty in the extent and amount to which issuers pay into, or receive from, from the risk adjustment and RADV process.

Ensuring RADV is Done Accurately and Making Near Term Improvements

While Covered California agrees that the RADV program is necessary and important, we believe that as designed, the process does not deliver the necessary checks and balances to ensure accuracy and predictability, and that

the current program – including for the 2017 plan year – needs to be adjusted to accomplish the intent of the RADV program.

Covered California is concerned that should HHS finalize the first proposal, which would vary initial sample size based on issuer characteristics and use 2017 RADV results, the methodology would not appropriately reflect 2019 enrollment data. For instance, the absence of the shared responsibility payment (i.e., the mandate penalty) would not be factored into the calculations when using data prior to 2019. While we acknowledge that ensuring accuracy of the RADV methodology will take time, we ask HHS to continue with its risk adjustment and RADV program but increase the sample size given that current error rates are relatively high.

Based on actuarial review, the initial and secondary audit should consider a larger maximum sample size than what is currently provided regardless of HCC failure rates. Similar to HHS's current explanation for not changing the sample size (200) for very small issuers (3000 or fewer enrollees), we believe that all sample sizes should be statistically significant, not capped at 200, or 400 for large issuers and that larger sample sizes would increase the accuracy of the RADV results. Projection of future year adjustments based on too small a sample size may be subject to errors and be inappropriate. Covered California notes that many of our issuers are very large (with over 100,000 enrollees) so a larger sample size would be important for determining any error rate used to make significant adjustments to risk adjustment transfers. In addition, the current "over-sampling" methodology may need to be re-examined to do a better job of evaluating error rates across the 50+ HCC conditions. HHS should also consider an adjustment to address the current "cliff" effect whereby the current methodology measures the magnitude of the risk adjustment failure rate.

Absent making adjustments to the existing program, issuers may be discouraged from participating in the individual market to the detriment of consumers.

Long Term Improvements to Risk Adjustment Accuracy

Covered California is concerned that the current RADV process does not meet either of the core needs of assuring accuracy and minimizing health plan uncertainty. We encourage HHS to convene a joint industry, stakeholder, risk adjustment experts and HHS workgroup to discuss improvements to the risk adjustment, RADV or other methodologies to ensure the risk adjustment program operates as intended.

While HHS works to develop a more accurate methodology, the RADV program should move forward to prevent any market disruption. As HHS develops a more accurate methodology, it may be necessary to develop a retroactive adjustment for risk adjustment years that used 2017 benefit year data or perform the RADV but wait to finalize until a necessary evaluation of the methodology is completed.

Premium Adjustment Methodology

Annually, the Secretary of HHS determines the annual premium adjustment, a measure of premium growth that is used to set the rate of increases for the 1) The maximum annual limitation on cost sharing (2) the required contribution percentage used to determine eligibility for certain exemptions; and (3) the employer shared responsibility payment amounts. HHS is proposing to use an alternate premium measure that captures increases in individual market premiums, in addition to increases in employer-sponsored insurance premiums, for purposes of calculating the premium adjustment percentage for the 2020 benefit year. Covered California recommends that CMS reconsider the proposal to include individual market premiums in the premium adjustment percentage methodology. As CMS notes, individual market premiums were not included in the premium adjustment percentage formula previously to allow time for volatility in the individual market during ACA implementation to settle. While some states, including California, have taken active steps to ensure individual market stability, federal actions such as zeroing-out the individual mandate penalty, cessation of federal CSR payments, and recent rulemaking (including the substantial delay of this year's proposed NBPP) have not contributed to stability in the individual market, recommending against methodological changes at this time.

The indexing methodology itself places the burden of rising health care costs and sluggish wage growth squarely on households, which CMS acknowledges will result in added cost burdens to consumers. As this federal Administration has noted, health coverage policy should support the hard-working Americans who struggle to pay premiums and out of pocket costs, rather than exacerbating them. For this reason, policymakers in California are actively exploring options to increase affordability of individual market coverage. We urge CMS to uphold this principle by maintaining the current methodology that does not include individual market premiums when indexing advance premium tax credits and cost sharing limits.

Changes to Prescription Drug Formularies

HHS is proposing to allow issuers in the individual, small, and large group markets to update their prescription drug formularies by allowing certain mid-year formulary changes, if permitted by state law. Specifically, HHS is proposing to allow issuers to make formulary changes during the plan year when a generic equivalent of a prescription drug becomes available on the market, within a reasonable time after that drug becomes available.

Additionally, HHS is proposing that amounts paid toward cost sharing using any form of direct support offered by drug manufacturers to insured patients to reduce

or eliminate immediate out-of-pocket costs for specific prescription brand drugs that have a generic equivalent are not required to be counted toward the annual limitation on cost sharing.

Covered California strongly supports state flexibility when finalizing this proposed regulation. We maintain that health care and health insurance markets are local and as states are looking at tackling the high cost of prescription drugs, state flexibility will allow for innovative solutions to high and rising out-of-pocket costs for prescription drugs.

Sincerely,

Peter V. Lee
Executive Director

cc: Covered California Board of Directors

February 19, 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 Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2020; CMS-9926-P (RIN 0938-AT37) – User Fee Recommendations

Dear Secretary Azar,

Covered California is submitting comments in response to the proposed regulations CMS-9926-P. The comments in this letter refer to the proposed decrease in the User Fee for 2020 for Federally-facilitated Marketplace (FFM) and State-based Marketplaces on the Federal Platform (SBM–FPs). Covered California has also submitted comments on premium adjustment, risk adjustment data validation, and prescription drug formulary changes and joined with the Executive Directors of all 13 state-based marketplaces to submit comments regarding automatic re-enrollment and stability in cost-sharing reduction funding.

The Department of Health and Human Services (HHS) is proposing to reduce the FFM user fee for 2020 by 0.5 percentage points, which would change the user fee to 3.0 percent of premium for the FFM and 2.5 percent of premium for SBM-FPs. Due to the fact that HHS and the Centers for Medicare and Medicaid Services (CMS) have not publicly released budget figures and expense allocations for operating the federal marketplace, it is difficult to fully assess the appropriateness of this proposal. However, as detailed below, we are deeply concerned that the assessment reduction of 0.5 percent of premium is likely only able to be "justified" based on the administration's decisions to drastically reduce spending on marketing, outreach and appropriate fostering of consumer-centric policies in the 39 states for which it has taken on the responsibility of promoting lower costs and better competition. Such actions are the definition of "penny-wise and pound foolish" — investments in marketing to promote a better risk mix and policies that help consumers understand the value of coverage and would reduce premiums many times over the 0.5 percent cost in assessment. Largely due to making these investments, premiums in California are approximately 20 percent

lower than those in states served by the FFM due to the healthier risk mix of those enrolled. The "efficiency" of a half-percent reduction in the FFM assessment must be considered against the lost opportunity of lowering premiums by enrolling more and healthier consumers.

The regulations note that the assessment on issuers is specifically intended to cover the costs of the "special benefits [issuers receive] from the following federal activities:

- Provision of consumer assistance tools;
- Consumer outreach and education;
- Management of a Navigator program;
- Regulation of agents and brokers;
- Eligibility determinations;
- Enrollment processes; and
- Certification processes for QHPs."

While the regulations do not provide any details on how the FFM meets these required activities, other public reports have detailed substantial reductions in investments in marketing, outreach and the federally required Navigator program with CMS decreasing navigator funding by roughly $26 million[1] (down to $10 million for 2018) as well as spending only $10 million on marketing and outreach[2] in both the 2018 and 2019 plan year. It appears that a major factor in lowering the assessment is the administration's decision to pull back on needed marketing and outreach activities.

What follows is a discussion of why and how pro-consumer and pro-competition policies, such as have been adopted in California, can lead to premium reductions of as much as 20 percent and foster real and robust competition among health plans.

Covered California's Assessment and Spending as Frame of Reference

Outside of the FFM, Covered California runs the largest Affordable Care Act marketplace in the nation. Serving the largest state, Covered California promotes coverage in the individual market — on and off-exchange — that totaled about 2.4 million people in 2018. Covered California is wholly transparent about our annual budget and how our health plan user fee is put to use to operate an effective exchange that works for consumers (see Appendix, Figure 1: Covered California Budget 2018-2019 Fiscal Year). For 2019, Covered California's user fee was 3.75 percent of "on-exchange" premium and current plans are to reduce the assessment to 3.5 percent in 2020. Of note, when those costs are spread across the entire individual market that assessment translates to approximately 2.3 percent of premium.

[1] https://www.cms.gov/newsroom/press-releases/grants-awarded-federally-facilitated-exchange-navigator-program

[2] https://www.cms.gov/newsroom/fact-sheets/federal-health-insurance-exchange-2019-open-enrollment

For the current fiscal year (FY 2018/19) Covered California's total budget of $340.2 million is divided into five major categories — all related to promoting enrollment and retention:

- **Outreach, Sales and Marketing —** $107 million, 31 percent of budget: reflects paid advertising, support for agents, public relations, a navigator program, and other outreach-related efforts;
- **Service Center/Positive Consumer Experience** — $105 million, 31 percent of budget: Covered California operates and directly employs workers for a phone, mail and chat-based consumers support center;
- **Technology/Enrollment Systems** — $70 million, 21 percent of budget: the on-line search, shop & compare and enrollment system is operated in conjunction with the state's Medicaid program (Medi-Cal in California) (see CoveredCA.com);
- **Plan Management/Evaluation** — $17 million, 5 percent of budget: reflects negotiating with health plans, structuring and evaluating patient-centered benefit designs, and efforts to promote lowering of costs in the health care delivery system; and
- **Administration** — $41 million, 12 percent of budget: the general financial, oversight, personnel and other core administrative functions.

Given the lack of transparency of the administration's expenditures, it is not possible to do a clear direct comparison of the respective investments in each area between Covered California and the FFM. It is possible, however, to make comments informed by more than five years of experience in and commitment to running a well-functioning marketplace that works not only for consumers receiving premium tax credits but also ensures that high-value and affordable options are available for the one million Californians that purchase individual market coverage without a tax credit. Some of the key indicators that can and should be used to assess the efficacy and how effectively an individual market is meeting the needs of its consumers include:

- **Risk mix:** California has a healthier risk mix than that in FFM or other SBM states — with a risk mix that is about 20 percent healthier than the FFM average (see Appendix, Figure 2: Comparison of FFM, SBM and California Risk Scores, 2014-2017). The Wakely Consulting Group, conducting an independent analysis found that Covered California's better than average risk mix is not driven by demographics (i.e., not driven by having a younger average age), but by the better health profile of the individuals who enrolled across demographic groups.[3]
- **Premiums:** California's healthier enrollment translates to 20 percent lower costs than Covered California would have otherwise had if its risk score were the same as the national average – specifically, on-exchange premiums were $2.6 billion lower for 2015 and 2016. Covered California's marketing and outreach investments in 2015 and 2016 likely lowered premiums by 6 to 8 percent.
- **Level of competition:** Covered California has 11 participating qualified health plans; 82 percent of consumers with three or more carriers from which to choose in 2019 (compared to 58 percent of consumers nationally with three or more

[3] Health Affairs. "National vs. California Comparison: Detailed Data Help Explain the Risk Differences Which Drive Covered California's Success." https://www.healthaffairs.org/do/10.1377/hblog20180710.459445/full/.

options); and only 4% of consumers with only one plan (compared to17 percent nationally.[4]

- **Take-up rate:** Covered California's extensive marketing and outreach helped the state's individual market have one of the best take-up rates for 2018 which the Kaiser Family Foundation estimates at 64% for California and 44% for the 39 states served by the FFM.[5]
- **New enrollment:** The primary driving factor in the loss among FFM enrollment has been a consistent and dramatic reduction in the number of people newly signing up for coverage. In the past four years, the FFM has seen a 49 percent reduction in open-enrollment plan selections (see Appendix, Figure 4: Comparing New Sign-ups, Covered California and FFM, 2016- 19). While Covered California's drop in new enrollees who signed up during the 2019 open-enrollment period surpassed what states served by the FFM experienced, the decline in the FFM is compounded by the fact that those markets have already experienced several sharp decreases in new enrollment.
- **Off-exchange enrollment:** A Kaiser Family Foundation analysis comparing the first quarters of 2017 and 2018 – periods which enroll the highest number of consumers – shows that nationwide total individual market enrollment fell by 2 million or 12 percent, a drop that was driven by a 38 percent decrease in the off-exchange market which contracted by 2.3 million consumers.[6] Although Covered California does not yet have data for 2018 off-exchange consumers, the share of unsubsidized enrollment in California's individual market has held relatively steady between 2015-17 (see Appendix, Figure 5: Total Individual Market Enrollment by Subsidized vs. Unsubsidized).[7]

Using the Tools of The Affordable Care Act for Consumers and Competition

The Affordable Care Act (ACA) established an economic framework and financial assistance structure designed to ensure that individual market coverage works for all enrollees. Healthy individuals were provided both positive and negative incentives to maintain coverage through premium tax credits and the individual mandate penalty, respectively. Individuals with health conditions have benefitted from the prohibition of preexisting condition exclusions and elimination of lifetime and annual benefit limits. And all consumers have benefitted from a core set of essential health benefits that ensure they can receive the care they need when unexpected health issues arise. This framework was designed to balance healthy and sick enrollees in a common risk pool of

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[4] Kaiser Family Foundation. Insurer Participation on ACA Marketplaces, 2014-2019. https://www.kff.org/health-reform/issue-brief/insurer-participation-on-aca-marketplaces-2014-2019/

[5] Kaiser Family Foundation. Marketplace Enrollees Receiving Financial Assistance as a Share of the Subsidy Eligible Population. 2018. https://www.kff.org/health-reform/state-indicator/marketplace-enrollees-eligible-for-financial-assistance-as-a-share-of-subsidy-eligible-population/.

[6] Kaiser Family Foundation. Data Note: Changes in Enrollment in the Individual Health Insurance Market. July 2018. https://www.kff.org/health-reform/issue-brief/data-note-changes-in-enrollment-in-the-individual-health-insurance-market/.

[7] Centers for Medicare and Medicaid Services. Trends in Subsidized and Unsubsidized Individual Health Insurance Enrollment. July 2, 2018. https://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Marketplaces/Downloads/2018-07-02-Trends-Report-2.pdf

ACA-compliant health plans with the benefits inuring to consumers in the form of lower premiums.

California has remained committed to this framework since 2014. That commitment has been reflected in state-policies such as the expansion of Medicaid, the recent passage of legislation to ban short-term plans and the Governor and the legislature's active consideration of implementing a state-level individual shared responsibility penalty and new subsidies. The commitment has also been evidenced by Covered California's actions to promote enrollment, foster competition among carriers and support patient-centered benefit designs.

This commitment, however, does not appear to have been maintained by the FFM and through national policies undertaken at the federal level. Over the last two years, the Administration has deprioritized marketplace operations while consistently promoting policies that fracture the common risk pool and lead to instability and higher costs in the individual market. These actions have hurt subsidized and unsubsidized consumers alike through lower health plan participation, higher premiums, and federal endorsement of insurance products that deny access to millions and — for those who do pass underwriting processes could leave consumers bankrupt in the event of an unforeseen accident or illness that are not subject to coverage or payment standards.

To better understand what a marketplace can and should do with its assessment to promote lower premiums and better consumer-centric competition, Covered California provides the following observations on how it has sought to foster strong marketplace management in defense of low- and middle-class Americans who should have the benefit of affordable, high-quality coverage that is available to hundreds of millions of Americans with employer-sponsored coverage, Medicare and Medicaid. These comments are intended to inform the Administration's consideration of its adjusting its assessment in the context of how it could make investments to best foster lower prices and better access to care.

Markets Do Not Manage Themselves: Exchange Functions are Critical to Promote Enrollment and a Good Risk Mix Necessary for Marketplace Stability

In addition to funding marketing and outreach, federal law and regulation requires all exchanges to perform certain function and permits the user fee revenue to recoup the costs for various exchange functions. These functions include making marketing and promotion, eligibility determinations and enrollment, appeals, oversight and financial integrity, qualified health plan certification, quality activities (e.g., quality improvement activities, consumer satisfaction surveys, etc.), and program integrity.[8]

The fundamental element required for the success of any marketplace is generating enrollment that reflects, and continually refreshes, the risk mix to ensure the lowest possible premiums for all consumers. Exchanges face constant churn with a substantial

[8] 45 CFR Part 155.

portion of consumers moving out of exchanges each year to other forms of coverage and new enrollees joining as they become newly eligible. A good risk mix and a viable business proposition for exchanges does not "just happen" – insurance must be sold. Selling insurance – which is different than providing a free benefit to a beneficiary, as is the case in most Medicaid programs – requires ongoing and significant investments in marketing and outreach to both promote retention of current enrollees and attract new enrollees that reflect a balanced risk pool. Equally important is ensuring that health insurance products meet the needs of consumers and do not present barriers to accessing needed care. Covered California's activities include:

- **Marketing and Outreach:** In 2017, Covered California released a report – "Marketing Matters: Lessons from California to Promote Stability and Lower Costs in the National and State Individual Insurance Markets" – which shows marketing and outreach are proven ways to increase enrollment, lower premiums, save consumers money and stabilize the individual insurance market. The report finds that not only are marketing and outreach critical investments to promote enrollment, but they appear to have a large return on investment since bringing more healthy people into the risk pool further lowers premiums, saving money for everyone.

- **Patient-Centered Benefit Designs and Assisting Plans to "Price Right:"** As a fully functioning exchange, Covered California works directly with health plans to assist with benefit designs and "pricing right" by sharing risk data with them. Through convening a Benefits Design Workgroup comprised of health plans, actuarial staff, and consumer advocates, Covered California develops plans that have the intent of simplifying consumer choice to aid better decision making, limit out-of-pocket costs, and promote access to high-value care. This is why Covered California offers patient-centered benefit designs that were developed with input from consumer advocates, health plans, and policy experts. The benefits of patient-centered benefit designs are significant and allow consumers seeking coverage through the marketplace to easily compare health plans knowing every health plan has the same cost-sharing levels and benefits. Patient-centered benefit designs were designed to minimize financial barriers to access for consumers, reduce confusion and to have designs that actively reinforce efforts to promote higher value care delivery, such as better use of primary care. Covered California's patient-centered benefit designs allow consumers at every metal tier to visit their primary care physician without the cost being subject to a deductible.

  Covered California believes that more choice is not always better as consumers with expensive health care conditions could, for example, inadvertently select a plan that limits coverage for specialty drugs (see Appendix, Table 2: Comparison of 2018 Silver Plans for a 27-Year Old in Sacramento vs. Atlanta). In addition, all

too often consumers face unnecessary deductibles not because of their making uninformed choices but because of confusion. When selecting a plan, consumers must weigh dozens of factors that will determine their out-of-pocket costs. In California, our patient-centered benefit designs narrow the choices a consumer must make to premium, provider networks, and quality because cost-sharing and the applicability of the deductible is standardized for all benefits within a metal tier.

- **Promoting Higher Value Care:** Exchanges have an affirmative obligation to ensuring enrollees receive high-quality care, not simply just operating a website for enrollment. In this regard, Covered California has expanded upon the federal Quality Improvement Strategy requirements through a stakeholder process with its health plans, providers, and consumer advocates. Through contract requirements referred to as "Attachment 7," Covered California sets forth specific requirements related to improving quality, lowering costs, promoting better health and reducing health care disparities, both for our enrolled population and more broadly in the health care system. These contract requirements are monitored by Covered California staff and resources, in addition to the annual plan certification process.

Federal Policies are Eroding Individual Market Enrollment, Increasing Federal Costs and Pricing Out Middle-Class Americans Who Do Not Qualify for Subsidies

There are multiple factors that go into making a marketplace successful — so it is very difficult to assess the impact for 2020 of the proposed reduction of the FFM assessment from 3.5 percent to 3.0 percent. What is abundantly clear, however, is that taken together the policies adopted by the current administration are failing to meet the needs of consumers in the 39 states served by the FFM. By not investing in marketing or promoting policies that foster a better risk mix,

The impact on enrollment nationally for the 2019 plan year has already been documented in reports on enrollment through the FFM, with overall plan selections dropping 4 percent, driven largely by a 16 percent decrease in the number of new consumers signing up during open enrollment (see Appendix, Table 1: Comparing Net Plan Selections, Covered California and FFM, 2019 Open Enrollment). The drop in enrollment for 2019 builds on large decreases experienced by states served by the FFM in the 2016, 2017 and 2018 open-enrollment periods. Taken together, during the three years leading up to the 2019 open-enrollment period, states served by the FFM experienced a 39 percent decline in new enrollments, decreasing from 4 million to 2.5 million. In contrast, during the same three years, California saw a modest decrease in new enrollment, going from 425,000 to 388,000 (a 9 percent drop) (see Appendix, Figure 3: Comparing Net Plan Selections, Covered California and FFM, 2016-19).

The primary driving factor in the loss among FFM enrollment has been a consistent and dramatic reduction in the number of people newly signing up for coverage. In the past

four years, the FFM has seen a 49 percent reduction in open-enrollment plan selections (see Appendix, Figure 4: Comparing New Sign-ups, Covered California and FFM, 2016-19). While Covered California's drop in new enrollees who signed up during the 2019 open-enrollment period surpassed what states served by the FFM experienced, the decline in the FFM is compounded by the fact that those markets have already experienced several sharp decreases in new enrollment.

While Covered California has remained committed to reaching all eligible consumers in the state, federal policies that have affected states served by the FFM have not reflected such a commitment. These policies include the removal of the penalty in 2019, cutbacks in marketing and outreach, promotion of short-term and other non-ACA-compliant health plans that pull consumers out of the common risk pool, as well as other policies in prior years. Taken together, these policies and affirmative steps put FFM states on a path to having an individual market that is made up of subsidized individuals who find their way to coverage and a virtual high-risk pool for unsubsidized consumers with poor health conditions.

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

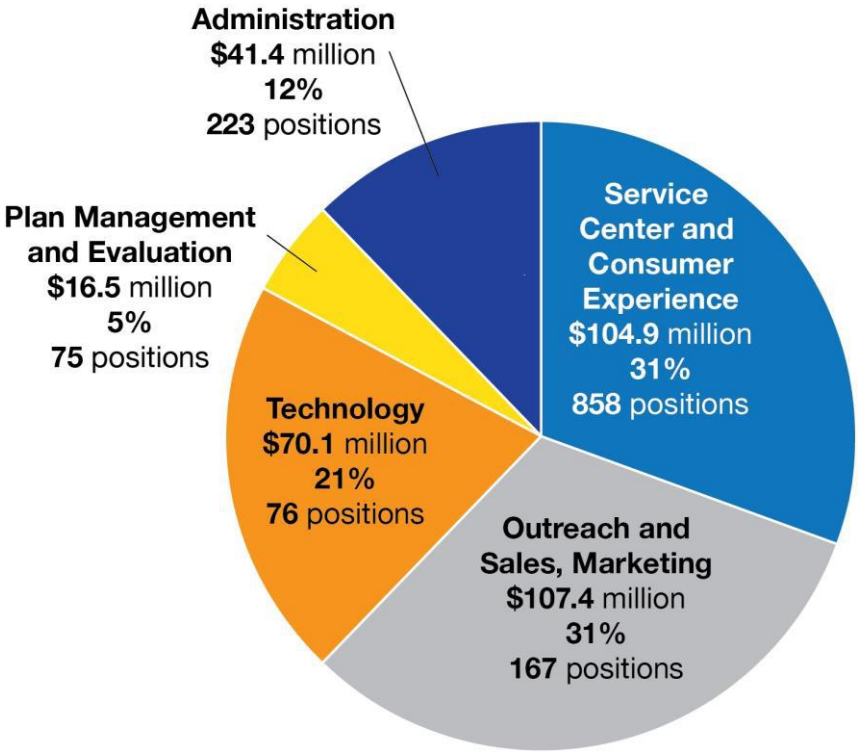
Sincerely,

Peter V. Lee
Executive Director

cc: Covered California Board of Directors

Appendix

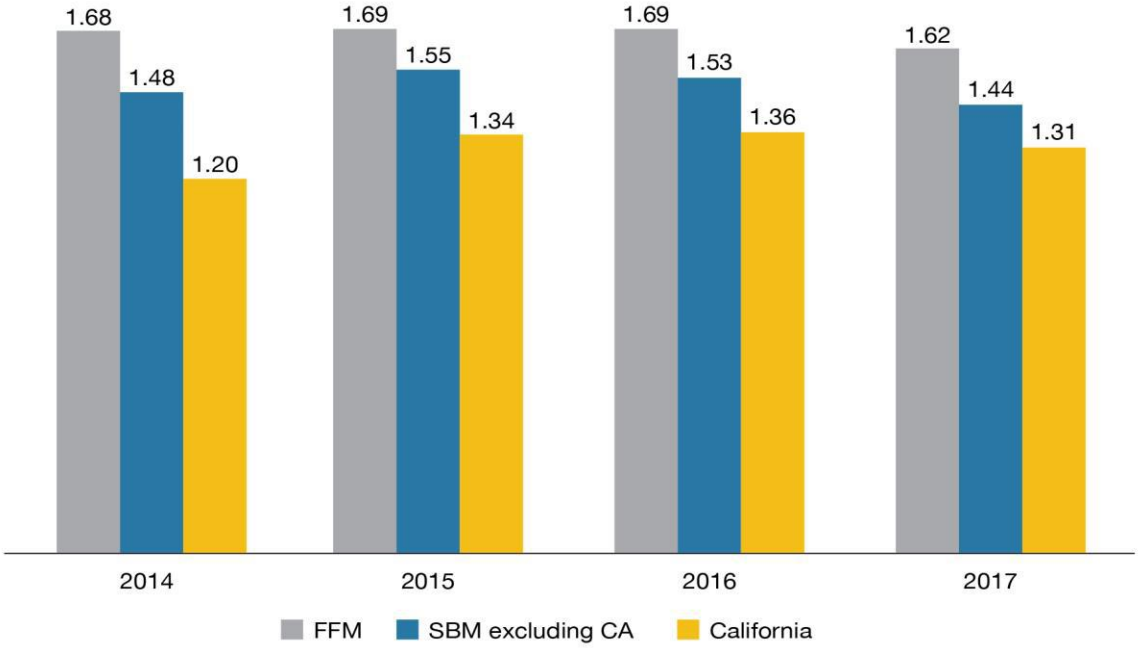
Figure 1: Covered California Fiscal Year 2018-2019 Operating Budget: $340.2 million



Source: Covered California Fiscal Year 2018-2019 Final Budget. June 15, 2018.
https://hbex.coveredca.com/financial-reports/PDFs/CoveredCA_2018-19_Budget-6-15-18.pdf

Figure 2: Comparison of FFM, SBM, and California Risk Scores, 2014-2017

Covered California had a 20 Percent Lower Risk Score than FFM States in 2017



Source: Covered California. Marketing Matters: Lessons from California to Promote Stability and Lower Costs in National and State Individual Insurance Markets. September 2017. https://hbex.coveredca.com/data-research/library/CoveredCA_Marketing_Matters_9-17.pdf.

Table 1: Comparing Net Plan Selections, Covered California and FFM, 2019 Open Enrollment

Category	Marketplace	2018	2019	Change
New sign-ups[5]	FFM	2,460,431	2,072,115	– 15.8%
	Covered California	388,344	295,980	– 23.8%
Renewals	FFM	6,283,211	6,339,499	+ 0.9%
	Covered California	1,133,180	1,217,903	+ 7.5%
Total	FFM	8,743,642	8,411,614	– 3.8%
	Covered California	1,521,524	1,513,883	– 0.5%

Source: Covered California. 2019 Open Enrollment Early Observations and Analysis. January 30, 2019. https://hbex.coveredca.com/data-research/library/CoveredCA_2019_Open_Enrollment_Early_Analysis.pdf.

Figure 3. Comparing Net Plan Selections, Covered California and FFM, 2016-19, in millions

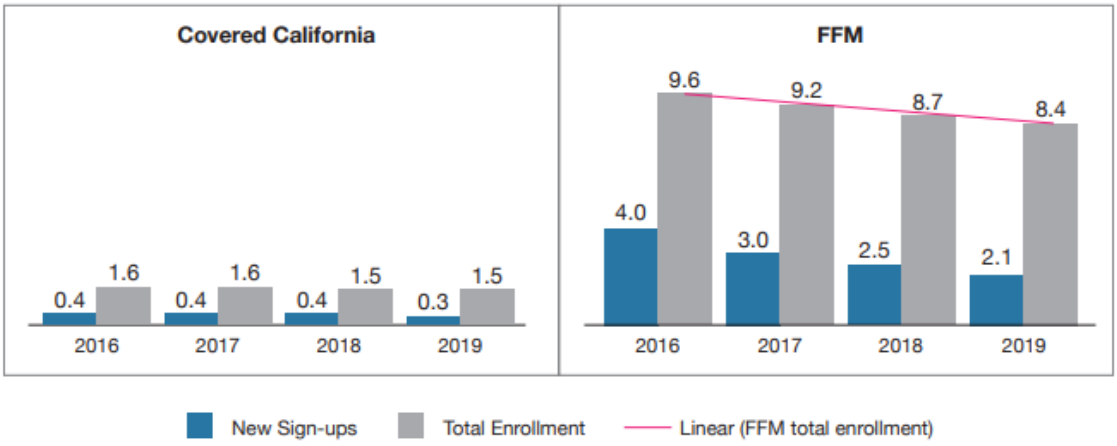
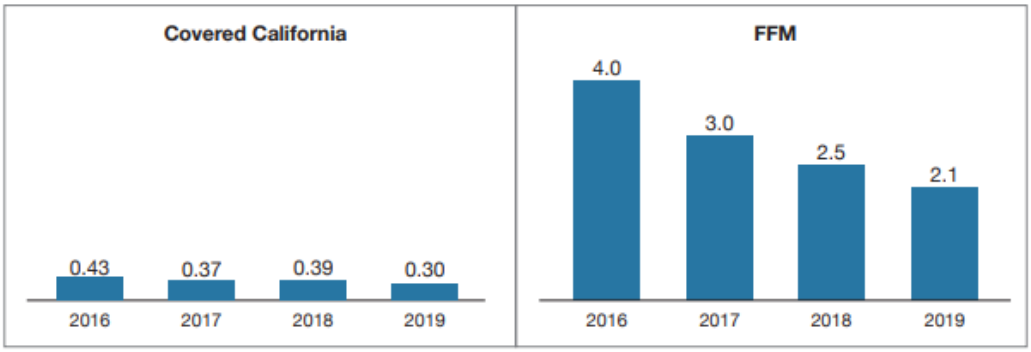


Figure 4. Comparing New Sign-ups, Covered California and FFM, 2016-19, in millions



Source: Covered California. 2019 Open Enrollment Early Observations and Analysis. January 30, 2019. https://hbex.coveredca.com/data-research/library/CoveredCA_2019_Open_Enrollment_Early_Analysis.pdf.

Figure 5: Total Individual Market Enrollment by Subsidized vs. Unsubsidized (in millions)

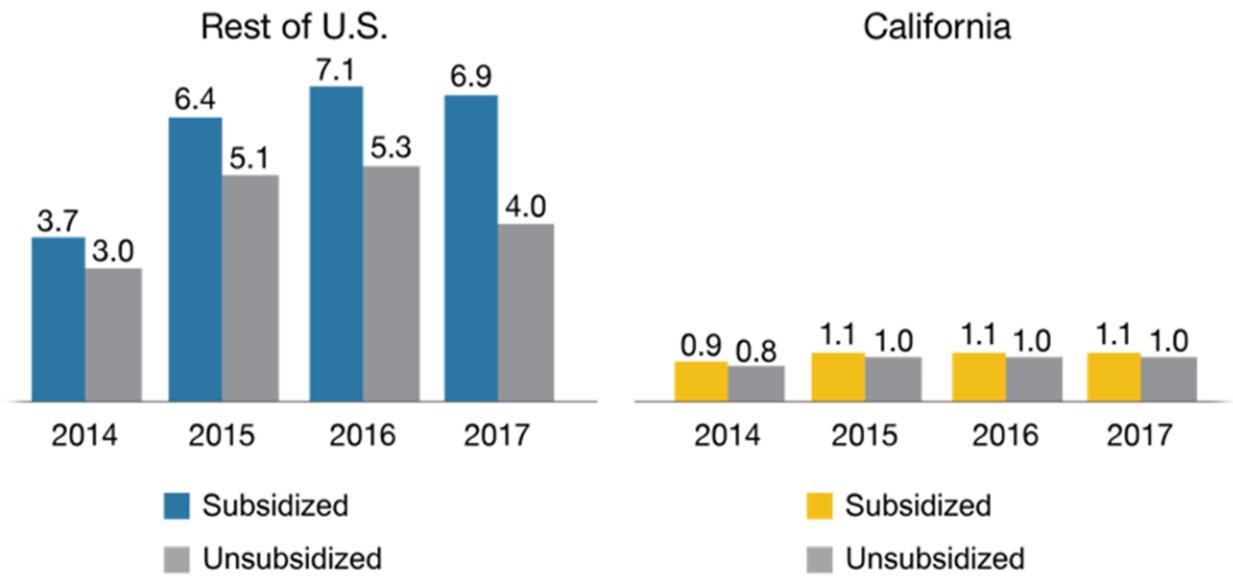


Table 2: Comparison of 2018 Silver Plans for a 27-Year Old in Sacramento vs. Atlanta

	Sacramento, CA	**Atlanta, GA**
Number of Silver Plans	5	11
Number of Carriers	5	2
Gross Premium	$366 - $504	$342 - $404
Advanced Premium Tax Credit	$122/month	$72/month
Monthly Net Premium* **(after Advanced Premium Tax Credit)**	$244 - $382	$270 - $332
Deductibles	$2,500 Medical $130 Drug	$2,750 - $7,050 Combined
Maximum Out-of-Pocket	$7,000	$6,000 - $7,350
Factors Consumers Must Consider When Selecting a Plan	Premiums ✓ ~~Deductibles~~ ~~Cost-sharing amounts~~ ~~Maximum Out-of-Pocket~~ Provider Networks ✓ Quality ✓	Premiums ✓ Deductibles ✓ Cost-sharing amounts ✓ Maximum Out-of-Pocket ✓ Provider Networks ✓ Quality ✓

February 19, 2019

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

Re: Comments on Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2020; CMS-9926-P (RIN 0938-AT37) –Automatic Re-enrollment and Stability in Cost-Sharing Reduction Funding

Dear Secretary Azar:

As the directors of 13 state-based marketplaces (SBMs), pursuant to the request for comments in the proposed Notice of Benefit and Payment Parameters for 2020, we submit the following comments regarding the potential implications of future policy changes to the standard practice of automatic re-enrollment at renewal, and the practice adopted by many states to have health plans fund their required cost-sharing reduction obligation through the practice of "silver loading." State-based marketplaces across America represent 35 percent of the US population and these comments emphasize shared perspectives and experiences across SBMs, and are supplemental to comments our individual marketplaces may have submitted to share our state-specific experiences. While we make these comments based on our experiences as states served by state-based marketplaces, we believe our perspectives are relevant nationally and therefore inform policies affecting states served by the federally facilitated marketplace (FFM).

Automatic re-enrollment is an industry standard and an essential operation of marketplaces.

Automatic re-enrollment at renewal is standard practice in the insurance industry, including employer-sponsored health insurance and Medicare, because it plays a critical role in ensuring continuity of coverage and care, as well as easing burdens on consumers and insurance carriers. Despite its nature as an industry standard, the Centers for Medicare & Medicaid Services (CMS) sought comment on the impact of potential changes to automatic re-enrollment processes and capabilities in the FFM and among SBMs through future rule making.

We are unclear what problem a prohibition of automatic re-enrollment aims to solve. The Notice of Benefit and Payment Parameters identifies concerns related to the impact of automatic re-

enrollment on program integrity and the appropriate administration of premium tax credits. However, federal rules and processes administered by SBMs and the FFM already provide a robust framework for ensuring program integrity. Marketplaces have comprehensive processes in place for verifying eligibility – they check consumer data against federal sources and require that changes are reported. This framework ensures eligibility is determined correctly throughout the year when changes in income and household composition occur, not just at renewal.

Automatic re-enrollment plays a vital role in enrollee retention and is an essential element of individual market operations. Prohibiting automatic re-enrollment would have significant negative impacts on consumers and the individual market generally, leading to instability, uncertainty, and the risk of plan withdrawals and increases in the number of uninsured individuals in our states. Prohibiting automatic re-enrollment of coverage would create significant disruption for consumers, carriers, and marketplaces for the following reasons:

- **It would increase the number of consumers without health insurance coverage.** For consumers, it would generate considerable confusion and unnecessarily introduce access and continuity of care issues to the extent consumers experience an unexpected gap in coverage, which could result in missed medical treatments or unfilled prescriptions. Consumers would need substantial education and support to navigate changes to established re-enrollment practices, which would require sizeable investment in consumer outreach, enrollment assistance, and marketing. Consumers who inadvertently fail to re-enroll during open enrollment would face barriers to resuming coverage if they do not have a Special Enrollment Period. Over the long term, consumers would also be very likely to face higher costs, as health plans would price their premiums on the assumption of lower retention rates for healthier individuals.

- **If automatic re-enrollment is prohibited, health plans are less likely to participate in the individual market.** Stable enrollment and retention are critical factors that plans take into consideration when deciding whether or not to offer coverage in a market. Automatic re-enrollment is a major driver of retention, leading to a more stable and healthier risk pool. The risk of enrollment loss resulting from consumers who may drop coverage because they do not understand new rules around re-enrollment could impact carrier participation decisions.

- **For the FFM and SBMs, eligibility and enrollment systems are built on a framework of automatic re-enrollment.** Prohibiting this process could require major system and operational changes for many marketplaces and carriers, which would be costly and complex to implement. It would also generate more calls to marketplace service centers as well as an increase in the number of appeals – both of which would put additional strain on marketplaces' resources.

Prohibiting automatic re-enrollment would place an undue hardship on consumers that is out of sync with the administration's policy of reducing consumer burden and limiting new regulations. Additionally, we are concerned that discontinuing automatic plan re-enrollment would impede consumers' right to guaranteed renewability, as required by state and federal law. Should this

process be disallowed by regulatory action, it is unclear whether it would be permissible under existing law.

Prohibiting "silver loading" – absent other policy changes – would create market instability, harm consumers, and intrude on states' rights to manage their insurance markets.

In 2017, the federal government ended direct funding of cost-sharing reductions (CSRs) — federally required payments that insurers must make to subsidize out-of-pocket expenditures for certain silver-tier enrollees. In response, many states, through their departments of insurance or other regulatory bodies actions, permitted or directed their health plans to add the anticipated costs of the CSRs subsidies to their marketplaces' silver-tier products, a practice referred to as "silver loading." Some states permitted or directed health plans to offer virtually identical "silver" products that did not include a silver surcharge outside of the marketplace, a policy that insulates consumers ineligible for financial assistance from paying increased premiums for silver-tier health plans.

If silver loading is prohibited at the federal level, health plans would likely be forced to implement alternative strategies to protect themselves from financial losses — leading to increased market instability and cost-shifting, which could lead to premium increases for some consumers. In an attempt to maintain individual market stability both on and off-marketplace, silver loading or other mechanisms appropriate to local markets should be permitted as an option in each state until a permanent solution to fund the CSR program — and potentially other strategies to assure market stability — are put in place, such as a federal reinsurance program. Now is not the time to add further instability to the individual market.

Stability and certainty benefit consumers.

Significant uncertainty from federal policy actions, such as the defunding of CSRs and the zeroing out of the individual mandate, have increased instability in the individual market nationwide. Prohibiting automatic re-enrollment and silver loading would introduce major changes to existing program rules and processes that could have a detrimental impact on enrollment, substantially raise premiums, and create even more uncertainty for carriers and consumers. In addition, removing local oversight function of state insurance bodies runs counter to the Administration's philosophy of promoting local control.

We would be pleased to provide you with any data or information that may be helpful to you. We look forward to additional opportunities to work with you to develop solutions that address our health care challenges and provide stability across all markets.

Sincerely,

Nathan Clark
Chief Executive Officer
MNsure

Michele Eberle
Executive Director
Maryland Health Benefit Exchange

Chiqui Flowers
Administrator
Oregon Health Insurance Marketplace

Louis Gutierrez
Executive Director
Massachusetts Health Connector Authority

Mila Kofman
Executive Director
DC Health Benefit Exchange Authority

Pat Kelly
Executive Director
Your Health Idaho

Heather Korbulic
Executive Director
Nevada Health Link

Peter V. Lee
Executive Director
Covered California

Pam MacEwan
Chief Executive Officer
Washington Health Benefit Exchange

James Michel
Chief Executive Officer
Access Health CT

Cassandra Madison
Director
Department of Vermont Health Access

Kevin Patterson
Chief Executive Officer
Connect for Health Colorado

Zachary Sherman
Director
HealthSource RI

State Health Exchange LEADERSHIP NETWORK
A PROJECT OF NASHP

The State Health Exchange Leadership Network is a project of the National Academy for State Health Policy (NASHP). For further information contact Trish Riley, Executive Director: 202-903-0101 triley@nashp.org

Commissioner Lara asks Trump Administration to withdraw proposed changes that 'wreak havoc on the Affordable Care Act'

News: 2019 Press Release

For Release: February 19, 2019
Media Calls Only: 916-492-3566
Email Inquiries: cdipress@insurance.ca.gov

Commissioner Lara asks Trump Administration to withdraw proposed changes that 'wreak havoc on the Affordable Care Act'

SACRAMENTO, Calif. — Today California Insurance Commissioner Ricardo Lara urged the Trump Administration to withdraw proposed rules that could "wreak havoc on the Affordable Care Act," making health care harder to access or more expensive for some Californians.

Commissioner Lara's letter to the Centers for Medicare & Medicaid Services, Department of Health and Human Services came in response to the Trump Administration's proposed changes to federal regulations referred to as the Notice of Benefit and Payment Parameters, which relate to the Affordable Care Act.

"Certain provisions of the proposed Notice of Benefit and Payment Parameters for 2020 threaten the financial security and health of Californians and others throughout our nation," wrote Commissioner Lara. "In previous years, annual changes to federal regulations made in the Notice of Benefit and Payment Parameters have not been used as an opportunity to wreak havoc on the Affordable Care Act. These proposed regulations include a number of provisions that would be destructive to health insurance markets and could cause Californians and those throughout the country to lose their coverage or find it unaffordable. I urge you to withdraw the portions of these proposed regulations that make such significant and harmful changes."

Read Commissioner Lara's full letter.

Key issues:

- The proposed regulations seek comment on "Silver Loading", a practice that California and many other states have utilized since the federal government stopped making the cost-sharing reduction payments (CSRs). Premiums in Silver health plans sold through the exchanges in some states include the CSR amounts; this results in higher premium subsidies for eligible individuals buying through the exchanges, while permitting policies sold outside the Exchange to avoid inclusion of the unpaid CSR amounts. This acts to keep the cost of insurance coverage and the out-of-pocket costs affordable.
- The proposed regulations propose to eliminate auto re-enrollment. Auto re-enrollment has been the practice since 2014. Doing away with it will cause confusion and will cause some people to lose coverage.
- The proposed regulations would require insurers selling through the Exchange to sell products that exclude abortion coverage, but otherwise mirror their products that include coverage for abortion, if permitted by state law. In states that don't require coverage for abortion services, this proposal could result in the insurer removing abortion coverage from all of their health insurance policies, rather than finding another way to comply with this onerous anti-choice requirement.

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The California Department of Insurance, established in 1868, is the largest consumer protection agency in California. Insurers collect $310 billion in premiums annually in California. Since 2011 the California Department of Insurance received more than 1,000,000 calls from consumers and helped recover over $469 million in claims and premiums. Please visit the Department of Insurance website at www.insurance.ca.gov. Non-media inquiries should be directed to the Consumer Hotline at 800.927.4357. Telecommunications Devices for the Deaf (TDD), please dial 800.482.4833.

STATE OF CALIFORNIA *Ricardo Lara, Insurance Commissioner*

DEPARTMENT OF INSURANCE
Executive Office
300 Capitol Mall, Suite 1700
Sacramento, CA 95814

February 19, 2019

Submitted via www.regulations.gov
Seema Verma, Administrator
Centers for Medicare & Medicaid Services
Department of Health and Human Services
Attention: CMS-9926-P
P.O Box 8016
Baltimore, Maryland 21244-8016

SUBJECT: Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2020
File Code: CMS-9926-P

Dear Administrator Verma:

As California's Insurance Commissioner it is my privilege and responsibility to regulate the nation's largest insurance market and lead the largest consumer protection agency in the state, the California Department of Insurance (CDI). Passage of the Affordable Care Act (ACA) was one of the most significant Congressional, legislative, and regulatory acts of the last fifty years. California has been a leader in the successful implementation of the ACA.

CDI implements and enforces the consumer protections provided by the ACA and codified into state law, such as essential health benefit requirements, anti-discrimination protections, and laws pertaining to access to health care. The comprehensive health insurance coverage intended by the ACA provides access to preventive care and other essential health benefits and enables Californians to maintain wellness and be confident that they will receive necessary treatment when needed without financial catastrophe. Millions of Californians have had their health and economic security improved as a result of the ACA. Adequate, affordable, and accessible health insurance is essential, as it provides hope for health and well-being, as well as peace of mind for Californians and their families.

As I will detail below, certain provisions of the proposed *Notice of Benefit and Payment Parameters for 2020* threaten the financial security and health of Californians and others throughout our nation. In previous years, annual changes to federal regulations made in the Notice of Benefit and Payment Parameters have not been used as an opportunity to wreak havoc on the Affordable Care Act. These proposed regulations include a number of provisions that would be destructive to health insurance markets and could cause Californians and those throughout the country to lose their coverage or find it unaffordable. I urge you to withdraw the portions of these proposed regulations that make such significant and harmful changes.

1) 84 FR 229, Automatic Re-enrollment

CDI opposes CMS' proposal to stop automatically re-enrolling insureds in their health insurance coverage. Adopting this proposal will result in a massive market disruption and increase health insurance rates due to a smaller risk pool. Insureds are accustomed to auto re-enrollment. Particularly with the shortened open enrollment period, consumers may fail to realize that they are not automatically re-enrolled in coverage until it is too late, and will lose their coverage, rendering them unable to enroll in any coverage for an entire year.

This proposal directly conflicts with the guaranteed renewability provisions found in federal statute and would result in cancelation of health insurance outside the events cited in 42 USC § 300gg-2. This proposal should not be adopted; individuals should be reenrolled in the same policy so long as that policy is not being discontinued or withdrawn from the market unless the consumer selects other coverage.

CDI is concerned about any action that would depress enrollment and create ripples of uncertainty among consumers, as this uncertainty and consumer confusion could depress enrollment even in states, such as California, that do not use the federal platform.

2) 84 FR 230, Promoting High Deductible Health Plans and Health Savings Accounts

Health savings accounts (HSAs) and High-Deductible Health Plans (HDHPs) are of no use to the many Americans who live from paycheck-to-paycheck and cannot afford to store money away in an HSA. Further, the use of HDHPs and HSAs is detrimental to the chronically ill. First, chronically ill individuals cannot store money away in HSAs while simultaneously maintaining their treatment regimen. In addition, HDHPs do not provide coverage until a deductible has been met. An HDHP may actually incentivize chronically ill individuals to defer care until their condition deteriorates sufficiently to necessitate expenditure of the full deductible, rather than incur the economic burden of the deductible to maintain their regimen. Such deferred care increases morbidity, and therefore increases costs over time. These costs are not just borne by the health insurance industry, but also the work force through missed work days. Rather than promoting HSAs and HDHPs, CMS should instead be spending its resources on increasing affordability, decreasing consumer confusion, and making health insurance coverage accessible to all.

3) 84 FR 234-35 & 313-14, Guaranteed Renewability of Coverage (§ 147.106)

CDI supports the proposal to permit issuers to implement mid-year coverage transitions to new generic drugs, but only when the generic offers out-of-pocket savings over the brand name equivalent drug due to lower tier placement in the formulary. CDI also supports applying this rule to large group health insurance products because those products are subject to the same prohibition on mid-year changes to coverage, and implicate the same consumer reliance concerns in having access to stable benefits, as health insurance offered in other market segments. However, CDI agrees with the NAIC that CMS should limit mid-year formulary changes for

brand name drugs with newly approved generic equivalents to tier placement changes and not permit issuers to remove brand name drugs from the formulary altogether in the middle of a plan year. Issuers should be prohibited from removing any drug from a formulary during a plan year.

CDI also agrees with the NAIC that the noticing requirements in the proposal should be strengthened by requiring a two-phase noticing approach. The first notice would advise covered persons of the availability of the generic equivalent drug and the out-of-pocket cost savings that will be available by switching to the generic drug to provide them with sufficient time to plan for changing their prescription. After 90 days has elapsed since the first notice was provided, the second notice would then advise covered persons that the out-of-pocket cost for the brand name drug will increase in 60 days. Only after 60 days have elapsed from the second notice would the issuer then be permitted to change the tier placement of the brand name drug to increase out-of-pocket costs. This two-phase noticing approach balances consumers' reliance interests in having access to stable benefits with issuers' interests in transitioning covered persons to less expensive generic equivalents for brand name drugs.

It is unclear why CMS proposes to require mid-year generic drug transitions to conform to the scope of a uniform modification of coverage under 45 CFR § 147.106(e)(3), which determines the extent of plan changes at renewal that trigger a discontinuation and applies only to individual and small group products. The preamble did not explain the reasoning for applying (e)(3) or how it would be applied in practice, but we assume the applicable standard would be (e)(3)(v) on changes to covered benefits.

Requiring mid-year formulary changes to comply with the standard in (e)(3)(v) is inconsistent with the proposal because cumulative changes in benefits that result in a greater than +/-2% effect on the plan-adjusted index rate are outside the scope of a uniform modification of coverage. Because the objective of the proposal is to permit realization of savings from mid-year generic drug approvals, applying that standard is at cross-purposes, as it would limit the amount of savings that could be realized.

Further, as noted in the preamble, the subdivision (e)(3) standard for a uniform modification of coverage does not apply to large group products. Because large group products are not subject to the requirement to establish an index rate under 45 CFR § 156.80, it is unclear why CMS proposes to require large group products to comply with 45 CFR § 147.106(e)(3) for mid-year generic drug transitions, and how this requirement would be applied in practice. However, CDI agrees with requiring mid-year generic drug transitions in individual and small group products to comply with (e)(1) and (e)(2) because the change should be effective uniformly and consistent with state law.

Applying subdivision (e)(3) to mid-year generic drug transitions will not protect consumers from excessive or negative tiering changes that increase their out-of-pocket costs. It is unlikely that the limit on benefit changes would ever be triggered, but if it were, it would limit realization of savings from generic drug substitutions without protecting consumers from adverse tier placement changes. To ensure that consumers benefit from mid-year coverage transitions to new

generic drugs, CMS should instead add regulatory text explicitly requiring that the generic drug not be placed on the same or a higher tier than the tier on which the brand name drug is placed. If the generic drug is not placed on a lower tier than its brand name equivalent, consumers will not realize any cost savings resulting from the addition of the generic drug to the formulary. As recognized by CMS in other prescription drug proposals it has recently made, it is only fair that issuers should share savings generated from lower prescription drug prices with their members. If the generic drug does not offer any cost savings over the equivalent brand name drug, there is no reason to require consumers to transition from the brand name drug in the middle of the plan year.

If CMS decides not to require the newly added generic drug to be placed on a lower cost sharing tier than its brand name drug equivalent, at a minimum it should adopt explicit language prohibiting the generic drug from being placed on a higher cost sharing tier. Without this restriction, issuers would be permitted to violate consumer's reliance interests in having access to stable benefits throughout the plan year by implementing mid-year generic drug substitutions that impose higher out-of-pocket costs. Such negative mid-year formulary changes are not permitted in Medicare Part D and should not be permitted in products subject to the ACA.

In conclusion, CDI supports this proposal if it is revised so that mid-year generic drug coverage transitions are not subject to the uniform modification of coverage standards in subdivision (e)(3). Instead of applying (e)(3), which does not protect consumers from negative mid-year formulary changes that increase their out-of-pocket costs, CMS should adopt regulatory text that requires the cost sharing for the generic drug to be less than for the brand equivalent drug. Additionally, CMS should require a longer two-phase noticing approach as advocated by the NAIC and described above.

4) 84 FR 251, Risk Adjustment Issuer Data Requirements (§§ 153.610 & 153.710)

CMS seeks comments on whether it should extract state and rating area information for enrollees as part of the enrollee-level EDGE data. CDI supports the inclusion of these data elements as part of the data available to qualified requestors. This data would be very useful for public health research, and transparency, and would also help state departments of insurance to be more informed in their rate review processes.

CMS also seeks comment regarding the use of state and rating area information for recalibration of the risk adjustment program, AV Calculator and methodology, and other market programs. CDI opposes incorporating rating area information into the Actuarial Value (AV) calculator, as this addition would add additional complexity without commensurate benefit, and could potentially require insurers to create different plans for different rating regions.

5) 84 FR 283, Silver Loading

In 2017, CSR payments were discontinued by the Trump Administration in violation of the ACA, which provides for these payments. In response to the termination of CSR payments,

issuers in many states used actuarial loading, also referred to as "silver loading," which increased premiums on silver level plans within the exchanges to compensate for the unfunded CSR payments. The loss of CSR payments threatened the exchange markets with immediate destabilization, which would have resulted in loss of coverage options and increases in premiums. Had the "silver loading" not taken place, issuers might have quickly exited the individual market, leaving people without the ability to purchase health insurance coverage. Instead, through the use of "silver loading", states were able to stabilize their markets in a way that improved the coverage options available to subsidized enrollees. "Silver loading" also improved the risk mix in exchange plans, as it made coverage more affordable.

CDI urges that, in the absence of Administrative or Congressional action resuming CSR payments, CMS either adopt the existing practice, or take no administrative action. Any changes to the existing practice will only destabilize insurance markets that have recently achieved a beneficial equilibrium despite the Administration's actions. Interfering with the ability of states to address the destabilizing act the Trump Administration took in withholding the CSR payments with remedies such as "silver loading" will increase premiums or cause issuers to stop selling health insurance in the individual market, and would cause millions of Americans to lose their health insurance.

6) 84 FR 284, Prescription Drug Benefits (§ 156.122)

CDI does not support a policy permitting issuers to impose therapeutic substitution because drug choice decisions should be made by a physician based on applying clinical expertise and judgment to each patient's individual circumstances. Not all drugs in the same therapeutic class work by the same biological mechanism. Even if multiple drugs in the same class do work by the same mechanism, the drugs will not always produce the same efficacy in different individuals. Further, drugs in the same class have different side effects that can make one drug preferable to another for a particular individual. This policy would empower issuers to substitute their judgment for that of a patient's doctor in complex clinical decisions.

Generic substitution is permitted because the brand name drug and its generic equivalent have identical active ingredients, strength, and formulation, while therapeutic substitution has a much greater potential to cause adverse health consequences. Additionally, bureaucratic delays in access to prescription drugs caused by medically inappropriate therapeutic substitution occurring at the pharmacy could increase adverse health consequences for consumers.

When issuers determine that a drug is a lower cost and effective alternative for another drug, they are already permitted to omit drugs from a formulary and require step therapy. Issuers should not be permitted to interfere in individual prescribing decisions beyond exercising their prerogative to exercise reasonable medical management. Therapeutic substitution is not a reasonable medical management technique, and we believe changes in statutory law would be required to allow pharmacists and issuers to engage in this ill-advised policy.

7) 84 FR 285-88 & 308, Premium Adjustment Percentage (§ 156.130)

CDI strongly opposes CMS's proposal to change the source of premium data used to calculate the premium adjustment percentage. This proposed change will have widespread adverse effects on the market, as the premium adjustment percentage is used to index the annual limit on cost-sharing, the required premium contribution percentage and the employer shared responsibility payment amounts. In the past, CMS correctly chose not to include the individual market premiums in the index when calculating the premium adjustment percentage due to the initial instability in individual market premiums. Rather than continuing to exclude the individual market from the index, CMS now proposes to change the measure of premium growth used to calculate the premium adjustment percentage to include individual market premiums, arguing that the proposed index is a more accurate reflection of premium growth.

Using a measure of premium growth that factors in the fluctuation in individual market premiums due to implementation of the ACA's market reforms is not more accurate because it captures more than premium trend caused by increases to health care costs. By including individual market premiums, initial individual market premium increases that were unrelated to increases in health care costs will be added to the index, injecting instability into the group markets and increasing instability in the individual market.

This change will result in lower premium tax credits and loss of coverage for consumers who rely on the premium tax credit to afford health insurance, and higher out-of-pocket maximums, which adversely impacts access to care for less healthy individuals with high health care expenses who need the protection of the out-of-pocket maximum. CMS, by its own estimates at 84 FR 308, anticipates that the change in the index will have widespread negative consequences: an estimated 100,000 fewer people with coverage, premium increases, increases in employer shared responsibility payments, decreases in premium tax credits, and increases in health insurance taxes. CDI strongly urges CMS to withdraw this extremely damaging proposal, in order to avoid the negative consequences that CMS itself predicts will occur if the proposed index is adopted.

8) 84 FR 289-91 & 320, Application to Cost-Sharing Requirements and Annual and Lifetime Dollar Limitations (§ 156.130)

CDI opposes CMS's proposal to permit issuers to exclude a brand drug that has an available generic equivalent from the definition of an EHB, even when the brand drug is covered. Permitting issuers to pick and choose which of the drugs they cover as EHBs will severely undermine the ACA's prohibition on annual and lifetime dollar limits on EHBs and cause excessive disruption and confusion for consumers and regulators.

The EHB minimum drug count requirement would never require a brand drug with an available generic equivalent to be covered because the requirement applies only to chemically distinct drugs. Issuers are already able to omit brand drugs with generic equivalents from a formulary or place them on a higher cost sharing tier than their generic counterparts. These commonly

employed medical management techniques, in addition to state laws that permit generic substitution, already encourage the use of lower cost generic equivalents. Consequently, this proposal is entirely unnecessary and appears to be another attempt by the Administration to weaken the consumer protections of the ACA by allowing dollar limits to apply to prescription drugs that an issuer chooses to cover voluntarily.

Any brand drug that an issuer elects to keep on its formulary following the introduction of a generic equivalent to the market should be covered as an EHB. Most consumers would be unaware that the difference in cost sharing between a brand drug and its generic equivalent does not count toward the out-of-pocket maximum, which is unfair when an issuer has elected to cover both drugs. Issuers should be incentivized to properly manage their formularies and implement a generic drug substitution process at network pharmacies rather than shifting costs of brand drug utilization on unsuspecting consumers.

This proposal should be withdrawn because there are already mechanisms through which issuers can encourage the use of available generic equivalents without causing harm to consumers by excluding cost sharing for a covered drug from accruing to the out-of-pocket maximum. Moreover, permitting issuers to impose annual and lifetime limits on covered drugs is inconsistent with the ACA, and could have serious consequences for consumers with chronic conditions.

If this proposal is adopted, CDI strenuously opposes preemption of state law. The regulation text should expressly provide that it applies only to the extent consistent with state law.

If this proposal is adopted, CMS should require issuers who choose to follow this policy when permitted by state law to disclose it to consumers in insurance policies and in a separate notice, including providing a list of covered brand name drugs with generic equivalents that are subject to the policy. The regulation should also explicitly state that exclusion of any amount of cost sharing from accruing to the out-of-pocket maximum is an adverse coverage determination subject to the appeals process in 45 CFR § 147.136, and that notice of appeal rights must be provided to an affected consumer whenever cost sharing is excluded from the out-of-pocket maximum. Robust notice requirements would mitigate the surprise negative effects of this policy by giving consumers notice and an opportunity to consider the consequences of continuing to take a brand name drug when a generic equivalent is available.

Finally, we note that the proposed text includes a critical error at 45 CFR § 156.130(h)(1)(i): the word “alternative” is used instead of “equivalent.” This error must be corrected to avoid any confusion between a generic *equivalent* to a brand name drug and a generic *alternative*.

The second proposal to permit issuers to exclude manufacturer coupons for brand name drugs that have a generic equivalent from accruing to the out-of-pocket maximum implicitly assumes that the generic drug is less expensive and thus that the coupon is distorting the market. Generic

drugs, especially the first approved generic, are not always appreciably less expensive than their brand name counterparts.[1]

California recently passed a law to prohibit drug manufacturers from offering coupons for a brand name drug when a lower cost generic equivalent is covered on a lower cost-sharing tier than the brand name drug. The law also includes important exceptions for drugs that are subject to a REMS program or when an issuer has authorized coverage for the brand name drug after an individual has satisfied a prior authorization or step therapy requirement (Cal. Health & Saf. C. §§ 132000 & 132004). If adopted, CMS should consider whether such exceptions to this rule are warranted, including that a brand name drug coupon should be permitted to count toward the out-of-pocket maximum when the generic alternative is not less expensive for the consumer based on the generic drug's tier placement in the issuer's formulary. We also oppose preemption of state law on this topic.

Additionally, there are omissions in the proposed text that need to be corrected. The rule should only apply when a generic equivalent is available on the market and covered by the issuer, as not all FDA-approved generics are brought to market. The rule should also include an exception for when an issuer has authorized coverage of the brand name drug due to medical necessity.

Finally, if this proposal is adopted, issuers should be permitted to exclude manufacturer coupons only at the point-of-sale, as allowing funds that were already accepted at the pharmacy to be excluded from the out-of-pocket maximum could incent abusive issuer practices.

9) 84 FR 320, Rules Relating To Coverage Of Abortion Services And Segregation Of Premiums For Such Services (§ 156.280)

I urge you to withdraw the amendments to the rules relating to coverage of abortion services and segregation of premiums for such services in the proposed rule. The clear purpose of the proposed addition of paragraph (c)(3) to 45 CFR § 156.280 is to interfere with access to abortion and decrease access to plans with abortion coverage, and it also has the potential to create substantial consumer confusion.

The proposed amendment in the proposed rule is inappropriate and extraordinarily burdensome to consumers and health insurers. As the preamble to the proposed rule notes, each state currently regulates the required benefits in QHP offerings. Further, section 1303(b)(1)(A)(ii) of the Patient Protection and Affordable Care Act, codified as 42 USC § 18023, states that if a state has not prohibited abortion coverage on the Exchange, "the issuer of a qualified health plan shall determine whether or not the plan provides coverage" of abortion services as part of the EHB covered by the QHP. The preamble conflicts with this clear language in the law granting sole discretion to determine coverage of abortion services to QHP issuers in the absence of state law restricting or requiring such coverage. Instead, CMS simply states that issuers' rights would not

[1] FDA Center for Drug Evaluation and Research, *Generic Competition and Drug Prices*, available at https://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm129385.htm.

be undermined by the proposed requirement that issuers providing coverage of abortion services also offer a mirror QHP excluding abortion coverage. This statement is both untrue and completely disregards the direct and likely impact of the proposed rule. Faced with a requirement to increase QHP plan offerings and duplicate administrative efforts, issuers will likely stop offering plans with abortion coverage altogether in states where there is no requirement to cover abortion. This will immediately impact thousands of families who will face the burden of paying out-of-pocket for medically necessary reproductive health care services. And while the cost will be borne by families of all types, the blocking of access to critical reproductive health care services creates a disparate and discriminatory impact on women.

The plain language of 42 USC § 18023(b)(1)(A)(ii) prohibits this proposed amendment to 45 CFR § 156.280. The proposal defies the statute, is complex and extraordinarily burdensome to both consumers and issuers, and would lead to increased cost and decreased access to reproductive health care services for women. CDI strongly opposes the proposed amendment.

Thank you for your consideration of these comments.

Sincerely,

RICARDO LARA
Insurance Commissioner

cc: California Congressional delegation

BROOKINGS

Testimony

Testimony on Texas v. U.S.: The Republican lawsuit and its impacts on Americans with pre-existing conditions

Christen Linke Young Wednesday, February 6, 2019

Editor's Note:

The following is a testimony delivered by Christen Linke Young to the House Energy & Commerce Committee Subcommittee on Health on February 6, 2019. More information about the hearing can be found here.

Chairwoman Eshoo, Ranking Member Burgess, members of the committee, thank you for the opportunity to testify today. I am Christen Linke Young, a Fellow with the USC-Brookings Schaeffer Initiative on Health Policy. My research focuses on private insurance, access to coverage, and the intersection between state and federal policy making. I am honored to have the opportunity to speak with you today about recent developments in health policy and their impact on consumers with pre-existing conditions. My testimony this morning reflects my personal views and should not be attributed to the staff, officers, or trustees of the Brookings Institution.

The Impact of the Affordable Care Act

The Affordable Care Act (ACA) has brought health coverage to millions of Americans. Since the law was passed in 2010, the uninsured rate has been cut nearly in half.[1] The ACA's Health Insurance Marketplaces are serving millions of consumers.[2] Insurance markets are functioning well and are offering people comprehensive insurance with robust consumer protections.[3] Thirty-seven states, including DC, have expanded Medicaid,[4] and many of the remaining states are considering expansion proposals.

Beyond its core coverage expansion provisions, the ACA has become interwoven with the American health care system. The law included a variety of new standards for employer-provided health insurance to improve workers' coverage. It enhanced Medicare benefits by closing the prescription drug "donut hole" and expanding coverage of preventive services, and made many changes to reimbursement that are now baked into the way Medicare pays providers and issuers. It created new tools for tackling fraud and abuse in federal health care programs. And to highlight a few of the many additional provisions, the ACA funded a variety of public health and health care workforce programs, reauthorized the Indian Health Service, created a pathway for the approval of biosimilar equivalents for biologic drugs, and required employers to provide space for nursing mothers to express breastmilk.

The ACA and Americans with Pre-Existing Conditions

One of the core goals of the ACA was to provide health care coverage for Americans with pre-existing conditions (many of whom had been denied coverage, charged more, or had their condition excluded from coverage prior to the ACA's passage), and I'd like to begin by discussing how the law achieves that objective. By some estimates, as many as half of non-elderly Americans have a pre-existing health condition,[5] and the protections the law offers to this group cannot be accomplished in a single provision or simple legislative proclamation. Instead, it requires a variety of interlocking and complementary reforms threaded throughout the law.

At the center are three critical protections: consumers have a right to 1) buy and renew a policy regardless of their health care needs; 2) have that policy cover the care they need, including care associated with their pre-existing conditions as well as new conditions; and 3) be charged the same price regardless of health status. These protections work together and are the law's essential starting point, but the law takes necessary additional steps. The ACA also prohibits annual and lifetime limits on the dollar value of care received and requires most insurers to impose a maximum out-of-pocket limit on copays, deductibles, and other cost-sharing. Crucially, the law ensures that insurance for the healthy and insurance for the sick are part of a single risk pool. With these critical consumer protections, robust risk adjustment is essential for enabling insurance markets to pool and share risk. Further, the law provides financial assistance tied to income to help make health insurance more affordable to Americans with pre-existing conditions at all income levels.

Texas v. U.S. and the ACA

However, a recent lawsuit threatens the system of protections put in place under the ACA. In *Texas v. United States*, a group of state attorneys general argue that changes made to the ACA's individual mandate in 2017 legislation render that provision in the law unconstitutional. Therefore, because of the supposed constitutional problem with a single provision, they puzzlingly argue that the entire ACA should be invalidated – stripping away its protections for people with pre-existing conditions and everything else included in the law. The Trump Administration's Department of Justice has agreed with the claim of a constitutional deficiency, and they further agree that central pillars of the pre-existing condition protections – the ability to buy and renew a plan and not be charged more – should be eliminated. But, unlike the state attorneys general, the Department of Justice argues that the weakened remainder of the law should be left to stand.

Other scholars can discuss the weakness of this legal argument; I'd like to discuss its impact on the health care system. The position articulated by the Department of Justice – that the law's core protections for people with pre-existing conditions should be removed – would leave Americans with health needs without a reliable way to access coverage in the individual market. Insurers would be able to deny coverage and charge more based on enrollees' health status. In many ways, the market would look like the pre-ACA individual market. Some components of the ACA would formally remain in place, but it is unclear how that would work in practice. With individuals required to complete medical underwriting screens and prices varying for every consumer, those broader ACA policies – like financial assistance, risk adjustment, and a standardized Marketplace – would struggle.

The position of the state attorneys general would wreak even greater havoc and fully return us to the markets that predated the ACA. In addition to removing central protections for those with pre-existing conditions, the financial assistance for individuals and families purchasing coverage and the ACA's funding for states' Medicaid expansions would also disappear. The Congressional Budget Office has estimated that repeal of the ACA would result in as many as 24 million additional uninsured Americans,[6] and similar results could be expected here.

The impact would also extend far beyond Medicaid and the individual market. The ACA's consumer protections for employer-based coverage, affecting more than 150 million Americans,[7] would be eliminated. The ACA's changes to Medicare would be undone, reinstating copays on preventive services and re-opening the prescription drug "donut hole." It would also create major confusion in Medicare payment, as the ACA policies that are today fully integrated into the Medicare payment rules would suddenly lack a legislative basis. The reauthorization of the Indian Health Service would no longer be in force. The FDA would not be authorized to approve the sale of biosimilar versions of biologic drugs,

needlessly holding back new drugs that would lower costs. Indeed, these are just some of the many and far-reaching effects of suddenly eliminating a law that is deeply integrated into the health care system nearly nine years after its passage.

Other Concerns for Americans with Pre-Existing Conditions

Before I close, I would like to briefly note that *Texas v. United States* is not the only recent development that threatens protections for Americans with pre-existing conditions. Recent policy actions by the federal Department of Health and Human Services also attempt to change the law in ways that would undermine the ACA's protections.

As just a few examples: Guidance addressing State Innovation Waivers under Section 1332 of the ACA purports to let states weaken the ACA's protections. It attempts to permit states to provide less comprehensive coverage that would not meet the needs of those with pre-existing conditions, and to reduce the number of state residents with high quality coverage. Nationwide, efforts to promote short-term health coverage and Association Health Plans seek to fragment the risk pool so that healthy people have options that are not available to the sick, thus raising the cost of coverage for the sick. Additionally, new waivers in the Medicaid program allow states to place administrative burdens in front of those trying to access care, which can pose distinct barriers for those with disabilities or significant health needs.

Conclusion

To summarize, the Affordable Care Act has resulted in significant coverage gains and meaningful protections for people with pre-existing conditions. *Texas v. United States* threatens those protections and could take us back to the pre-ACA individual market – a time when a person's health status was a barrier to coverage and care. The lawsuit would also damage the broader health care policy environment, and this litigation coincides with other attempts to undermine the ACA's protections for people with pre-existing conditions.

Footnotes

1. 1 *See, e.g.,* Kaiser Family Foundation, Key Facts About the Uninsured Population, December 7, 2018, https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/.
2. 2 *See, e.g.,* Center for Medicare & Medicaid Services, Final Weekly Enrollment Snapshot for the 2019 Enrollment Period, January 3, 2019, https://www.cms.gov/newsroom/fact-sheets/final-weekly-enrollment-snapshot-2019-enrollment-period; Center for Medicare & Medicaid Services, Effectuated Enrollment for the First Half of 2018, November 28, 2018, https://www.cms.gov/newsroom/fact-sheets/effectuated-enrollment-first-half-2018.
3. 3 *See* Matthew Fiedler, USC-Brookings Schaeffer Initiative for Health Policy, How Would Individual Market Premiums Change in 2019 in a Stable Policy Environment?, August 2018, https://www.brookings.edu/wp-content/uploads/2018/08/Individual-Market-Premium-Outlook-20191.pdf.
4. 4 Kaiser Family Foundation, Status of State Action on the Medicaid Expansion Decision, January 23, 2019, https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act.
5. 5 Emily Gee, Center for American Progress, Number of Americans with Pre-Existing Conditions by Congressional District, April 5, 2017, https://www.americanprogress.org/issues/healthcare/news/2017/04/05/430059/number-americans-pre-existing-conditions-congressional-district/. *See also* Gary Claxton et al, Kaiser Family Foundation, Pre-existing Conditions and Medical Underwriting in the Individual Insurance Market Prior to the ACA, December 12, 2016, https://www.kff.org/health-reform/issue-brief/pre-existing-conditions-and-medical-underwriting-in-the-individual-insurance-market-prior-to-the-aca (estimating 27 percent of non-elderly Americans have a pre-existing condition).
6. 6 Congressional Budget Office, Budgetary and Economic Effects of Repealing the Affordable Care Act, June 19, 2015 https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/50252-effectsofacarepeal.pdf. *See also* Congressional Budget Office, Federal Subsidies for Health Insurance Coverage for People Under Age 65: Tables From CBO's March 2016 Baseline, March 2016, https://www.cbo.gov/sites/default/files/recurringdata/51298-2016-03-healthinsurance.pdf.
7. 7 *See, e.g.,* Kaiser Family Foundation, Health Insurance Coverage of the Total Population, 2017, https://www.kff.org/other/state-indicator/total-population/.

State Reinsurance Programs: Design, Funding, and 1332 Waiver Considerations for States

Authored by Manatt Health

STATE Health & Value STRATEGIES | *Driving Innovation Across States*

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Introduction and Purpose of the Brief

The Affordable Care Act (ACA) was designed in part to help bring stability to the individual health insurance market. But faced with a fluid federal regulatory environment, many states continue to encounter challenges including large premium increases and declining insurer participation. One solution to continued market instability is a state-based reinsurance program similar to the federal program that reduced premiums by more than 10 percent per year from 2014 through 2016.

Table 1. Four Reasons to Consider a State Reinsurance Program

Four Reasons to Consider a State Reinsurance Program	
Reason	**Rationale and Support**
Reduce Premiums	> Reinsurance reduces insurer claims' costs by covering a portion of the most expensive claims with financing provided through a state-based funding source and a federal match. > States can use actuarial modeling to predict how much financing it will take to reduce premiums by 10% or 20%.
Attract Insurers	> Insurers are concerned that a small number of large claims can dramatically impact their overall costs in the individual market where there may not be a large enough pool of healthy participants to balance out their risk pools. > Insurer participation was higher before federal reinsurance was phased out in 2016, and insurers often cite federal or state-based reinsurance as the best way to make market participation more attractive.
Limit Volatility	> The individual market is small and vulnerable to the "5/50 rule": 5% of enrollees account for 50% of costs. > Reinsurance reduces market volatility by covering most claims' costs for the highest-cost enrollees with the least predictable claims.
Leverage Federal-State Partnership	> State reinsurance programs are eligible for federal matching funds through Section 1332 waivers.

The Department of Health and Human Services (HHS) and the Department of the Treasury ("the Departments") have strongly encouraged states to establish their own reinsurance programs. The Departments approved three 1332 "state innovation" waivers for reinsurance programs in 2017 and another four in 2018. These waivers offset state program financing with federal "pass-through" funding equal to the federal savings generated by reducing premiums. This means that to fund their reinsurance programs, states only have to cover the net cost after the federal pass-through funding (offset) is applied.

Table 2. Overview of Approved 1332 Reinsurance Waiver Funding

Overview of Approved 1332 Reinsurance Waiver Funding, 2019 (in millions)							
	Alaska	**Maine**	**Maryland**	**Minnesota**	**New Jersey**	**Oregon**	**Wisconsin**
Total Reinsurance Program Funding[1]	$64	$93	$462	$271	$324	$95	$200
Federal Pass-Through Funding	$69	$65	$373	$85	$180	$42	$128
State Funding Required (after pass-through funding)[2]	N/A	$28	$89	$186	$144	$53	$72
Percentage of Program Covered by Federal Dollars[3]	100%	70%	81%	31%	56%	44%	64%

With Congress failing to make any changes to the 1332 process, HHS did issue new 1332 guidance in October 2018 that provided more flexibility to states in how they meet the four statutory guardrails applicable to all 1332 waivers. HHS also issued a discussion paper in December 2018 that highlighted reinsurance and high-risk pools. Neither the guidance, nor the discussion paper, should have much impact on reinsurance waivers since the seven reinsurance waivers approved so far have had no trouble meeting stricter guardrail standards. The most germane guardrail is the one requiring that a 1332 waiver not increase the federal deficit, which acts as a cap on federal pass-through funding, and the new guidance generally left those rules unchanged. The new guidance could be more relevant if a state wanted to combine a reinsurance waiver with other marketplace changes. This topic brief provides a roadmap of policy, program design, and financing considerations for states that are contemplating development of a state-based reinsurance program under 1332 waiver authority.

Understanding the Potential Impact of a Reinsurance Program

Health care markets vary widely among states and within regions of the same state. Understanding how reinsurance might help a specific state market starts with a few questions.

> **What market problem does the state need to solve?** Reinsurance can be a strong tool if the key market problem is affordability of premiums, insurer withdrawals, or excess volatility/uncertainty. However, reinsurance will not help with other problems including network adequacy and affordability for individuals eligible for federal subsidies.

> **What is the average premium?** States with higher average premiums have more to gain from reinsurance, especially for unsubsidized enrollees paying full premiums. While reinsurance will not directly benefit subsidized enrollees, it will save the federal government money and 1332 waivers allow states to recoup those savings.

> **How much premium variation is there across rating areas?** States with large regional variations in premiums may be hard-pressed to retain insurers in high-cost areas; a targeted reinsurance program may be a solution to underserved areas in a state.

> **What does current insurer participation in the market look like?** Insurance regulators will want to consult with current market participants, as well as past and prospective participants, to understand what role reinsurance might play in their future participation.

> **What is the profile of the state's highest cost enrollees?** Disease and accident patterns vary by state, and states may target specific high-cost conditions through a condition-based reinsurance program.

The percentage of enrollees receiving federal subsidies in the individual market (both in and outside the marketplace) is the best predictor of how large a state's federal pass-through funding to offset state funding needs might be under a 1332 waiver. Federal pass-through funding will generally be larger than a state's subsidized percentage. For example, a state with 60 percent of their enrollees getting subsidies would generally have to finance less than 40 percent of its reinsurance program with state funds, though it is important to note that federal pass-through funding is based on calculations that are updated on an annual basis.

Designing a Reinsurance Program

Once a state determines that reinsurance may be beneficial, the next step is to answer questions that help to provide the parameters related to the scale and type of reinsurance program that is the best fit, given the state's unique market characteristics.

Table 3: Comparing the Two Reinsurance Models

	Benefits	Drawbacks
Condition-Based Model	Creates opportunity for better medical and cost management of expensive conditions.	Harder to implement in states with no prior experience with this model.
Attachment Point Model	Used in all states for federal program, 2014-2016, and may be more familiar to legislators and stakeholders.	May not address state-identified cost drivers as well as condition-based model.

- **How large of a reinsurance program?** States typically start with a target for premium reduction of 5 percent to 20 percent, and then use actuarial modeling to determine what level of reinsurance financing is needed to achieve that premium reduction. The next step is to calculate how much of that financing is projected to be offset by federal pass-through funding. The final step is to determine what level of state financing is politically feasible and whether to cap the state's contribution, which means that insurers would receive smaller reinsurance payments if there is a shortfall in the program.
- **What type of reinsurance program?** There are two broad types of reinsurance programs with many permutations.
  - A **condition-based model** identifies specific high-cost conditions to be included in the reinsurance program. Under this model, insurers typically cede some lives and premiums to the reinsurance program. Insurers could still handle claims and patient management (e.g., preauthorization, claim payment or denial, or care coordination), but might not have financial responsibility for the claims.
  - An **attachment point model** focuses on all claims, including accidents, and is based on the claim's cost. This model features an attachment point, a coinsurance corridor, and a cap. The attachment point is the cost at which reinsurance starts to pay. In the coinsurance corridor, insurers pay a specified percentage of the claims cost with reinsurance covering the remaining part of the cost. The cap is the amount at which the claim is no longer eligible for reinsurance, and full responsibility reverts to the insurer.

Example: Maine's Condition-Based Reinsurance

Under Maine's 1332 reinsurance program, which is similar to a pre-ACA version, insurers are required to enroll people with a list of specific conditions into the reinsurance pool and have the option of enrolling others. The plans must cede 100 percent of the premiums paid for these enrollees to the reinsurance pool.

For those ceded, the reinsurance covers 90 percent of claims between $47,000 and $77,000. This is the same basic structure as the pre-ACA program.

Table 4. Example of Attachment Point Reinsurance

Federal Attachment Point Reinsurance	
Attachment Point	$45,000 (2014—2015) $90,000 (2016)
Coinsurance Rate	80% (2014) 50% (2015—2016)
Cap	$250,000

Sources: Kaiser Family Foundation, Explaining Health Care Reform: Risk Adjustment, Reinsurance, and Risk Corridors, August 2016.

State Financing Considerations

The funding sources for a reinsurance program must be adequate and should include funding sources outside of the individual market. Without outside subsidization, reinsurance may help stabilize the individual market but will not reduce premiums in the individual market overall.

Table 5. Sources of Reinsurance Program Funding

Source	Example
Policy Assessment	The federal reinsurance program assessed all health insurance coverage, including, the large and small group markets, as well as stop-loss and third-party administrators (TPAs) to reach self-insured plans. Maine assessed health insurers and TPAs to reach all forms of health insurance except self-funded and self-administered plans.
State Premium Tax	Alaska's program is financed by a portion of the state's premium tax that applies to all lines of insurance.
State General Funds	Minnesota used general funds as one of several sources, which spreads costs across all taxpayers.
State Provider Assessments	Minnesota's funding includes a portion of the state's 2% provider tax, which applies to hospitals and other providers.

1332 Waiver Authorizing Legislation

Securing legislative authorization is typically the second most challenging step in the 1332 waiver process, though the October 2018 guidance allows that authorization to be general, rather than specific. Developing a strategy for legislative support and determining where this step fits in the timeline should be part of the early planning process. Federal law and guidance require state legislative authorization for both the waiver and the reinsurance program. If there is an existing high-risk pool or reinsurance statute, that may provide a good starting point. The statute should be specific as to the size and funding source, or sources, for the reinsurance program. The legislation should make the financing of the reinsurance program contingent on federal approval of the waiver.

Developing a 1332 Waiver Application

HHS has published a checklist that provides a step-by-step guide for what a state must include in its waiver application.[4] States can review the approved applications from Alaska, Maine, Maryland, Minnesota, New Jersey, Oregon, and Wisconsin to see how the checklist has been successfully used, and may also consult the standardized application template developed by the State Health and Value Strategies program. Key areas of the waiver application include:

- **Goals for the Waiver:** Description of how the reinsurance program will achieve state goals, such as lowering premiums, increasing enrollment, and encouraging insurers to remain in the market.
- **Authorizing Legislation:** Description of the state's legislation that authorizes both the 1332 waiver and the reinsurance program, and makes the operation of the reinsurance program contingent on federal approval of the waiver.
- **Funding:** Description of the funding sources used for the reinsurance program, the funding amount from each source, and the estimated amount of pass-through funding. Note that final pass-through funding will be determined using actual approved premiums, funding will be provided in quarterly installments starting in April of the covered year, and funding levels will be adjusted each year based on actual enrollments and premiums.

- **Actuarial Analysis:** Actuarial modeling, including a baseline scenario without the reinsurance program, and a year-by-year comparison of premiums and coverage with and without the reinsurance program. States may be able to utilize in-house actuaries, though outside actuarial firms may shorten timelines.
- **Ten-Year Budget:** Economic analysis, including a 10-year budget that considers all costs associated with the program, including administrative costs and demonstrates that the waiver is deficit neutral.
- **Waiver Development Process:** List of public hearing dates and compliance with other public participation requirements. States must observe a 30-day public comment period and hold a minimum of two public hearings. The public comment period can rely on a draft waiver as long as the public has sufficient information to meaningfully give input. The public comment process must include consultation with federally-recognized American Indian tribes.

Planning the Waiver Timeline

State Health and Value Strategies has a to-do list for states considering a Section 1332 reinsurance waiver. The first step listed in the to-do list is to sketch out a calendar for activities. Federal guidance advises states to file waivers by March for the subsequent calendar/plan year, though HHS did markedly shorten the review time for reinsurance waivers that were filed later in 2018 so they could go into effect for 2019. The most important lesson on the timeline is to be in close communication with the Departments, identifying and discussing any trouble spots, as well as understanding what other states may be in the queue. Federal officials may be open to allowing states to pursue various parts of their application simultaneously, with, for example, final legislative approval, public comment, and actuarial modeling taking place under overlapping timelines. While states have been successful in submitting applications in late spring, it is better to plan early for 2020 and submit 1332 waiver applications by March or April. Later filings may necessitate asking insurers to file two sets of rates or taking other actions that add complication to the process.

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This brief was prepared by Joel Ario and Jessica Nysenbaum. Manatt Health integrates legal and consulting expertise to better serve the complex needs of clients across the healthcare system.

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Endnotes

1. These amounts are set by the states, which have the flexibility to decide on the size of the reinsurance program, typically based on what percentage of premium reduction they have targeted.
2. Note that the state share of costs after the federal pass-through are calculated by using projected reinsurance losses, which are not actually settled until the following year in most programs (e.g., 2019 losses are filed and settled in 2020). Actual losses could increase or decrease the state share depending on how the state's reinsurance program allocates those losses.
3. If a state uses all of the federal funds to replace state dollars, this is the percentage of the total program covered by federal dollars.
4. Centers for Medicare & Medicaid Services. *Checklist for Section 1332 State Innovation Waiver Applications, including specific items applicable to High-Risk Pool/State-Operated Reinsurance Program Applications*. CMS.gov. https://www.cms.gov/CCIIO/Programs-and-Initiatives/State-Innovation-Waivers/Downloads/Checklist-for-Section-1332-State-Innovation-Waiver-Applications-5517-c.pdf. May, 2017. Accessed February 26, 2018.

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Variation In Health Spending Growth For The Privately Insured From 2007 To 2014

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ABSTRACT We examined the growth in health spending on people with employer-sponsored private insurance in the period 2007–14. Our analysis relied on information from the Health Care Cost Institute data set, which includes insurance claims from Aetna, Humana, and UnitedHealthcare. In the study period private health spending per enrollee grew 16.9 percent, while growth in Medicare spending per fee-for-service beneficiary decreased 1.2 percent. There was substantial variation in private spending growth rates across hospital referral regions (HRRs): Spending in HRRs in the tenth percentile of private spending growth grew at 0.22 percent per year, while HRRs in the ninetieth percentile experienced 3.45 percent growth per year. The correlation between the growth in HRR-level private health spending and growth in fee-for-service Medicare spending in the study period was only 0.211. The low correlation across HRRs suggests that different factors may be driving the growth in spending on the two populations.

From 1960 to 2013 US health care spending increased by 8.1 percent per year, on average, in real terms.[1] Over the past decade there has been a widely noted slowdown in Medicare spending.[2] By contrast, during the same period private insurance premiums have risen dramatically.[3] Unfortunately, while there are rich data on the variation and growth in fee-for-service Medicare spending across hospital referral regions (HRRs), much less is known about the variation and growth in health spending on the privately insured. Existing state-level and national data on insurance premiums offer a rough estimate on how health spending on the privately insured has grown over time. However, a deeper analysis of insurance claims data is necessary to offer more precise documentation of the patterns of spending on people with private health insurance.

While recent work has used insurance claims data to analyze cross-sectional variation in health spending on people with employer-sponsored insurance, much less is known about growth in private health spending over time.[4–6] For example, the 2013 Institute of Medicine report on variation in health spending briefly explored issues related to spending growth but did not look at variation in growth rates across the US.[7] Until now, the strongest analysis of the growth in commercial spending, by Michael Chernew and colleagues, used data for 1996–2006 and found that commercial spending growth across HRRs had a correlation with growth in fee-for-service Medicare spending of 0.20.[5]

We extended this earlier work by analyzing growth in health spending on people with employer-sponsored commercial health insurance in 2007–14 and documenting the variation in growth rates across HRRs. We began by analyzing the overall growth in health spending on the commercially insured during 2007–14, using the Health Care Cost Institute (HCCI) data

set—which is composed of claims data from Aetna, Humana, and UnitedHealthcare, three of the five largest health insurers in the US. We then documented the variation in growth rates in commercial health spending across HRRs. Finally, we correlated the HRR-level growth in commercial spending per enrollee in employer-sponsored coverage with spending growth on fee-for-service Medicare beneficiaries, and we identified HRRs that had low and high spending growth across both populations. This study is the first to characterize the variation in growth rates in health spending on the privately insured across HRRs.

Ultimately, crafting effective public policy requires a better understanding of the variation in growth rates in both Medicare and private health spending across the US. Moreover, it is critical to understand the extent to which fee-for-service Medicare and private health spending have had parallel growth across HRRs over recent years. Understanding the extent to which spending growth is correlated between fee-for-service Medicare and private employer-sponsored insurance sheds light on the extent to which different factors may be driving growth across the two populations and whether payer-specific policies are necessary to slow the growth of health spending in the US.

Study Data And Methods

DATA SOURCE The HCCI data set includes information on more than thirty-one million private health insurance enrollees per year and captured more than $106 billion in total health spending annually in 2007–14. While Medicare data are available through 2016, at the time we launched this analysis, 2014 was the most recent year for which private data were accessible via the HCCI.

We limited our analysis of private health spending to people younger than age sixty-five. In addition, we excluded claims for which privately insured enrollees had coordinated benefits with another payer (for example, with Medicare or another private insurer), so that the only claims we analyzed were those where one of the HCCI data contributors was the patient's primary insurer. We limited our analysis to HRRs with more than 5,000 enrollees from the HCCI sample each year in 2007–14, to obtain more precise measures of HRR-level spending growth. This restriction excluded twelve of the nation's 306 HRRs from our analysis. To analyze Medicare spending, we used data on annual risk-adjusted spending per fee-for-service beneficiary by HRR, information that is posted online by the Dartmouth Institute for Health Policy and Clinical Practice.[8] We excluded from our analysis spending for prescriptions filled in pharmacies because it is not included in the Dartmouth Institute's Medicare spending data. Our data did not capture spending on beneficiaries with Medicare Advantage (MA).

The HCCI data set is one of the most comprehensive databases of private health insurance claims available.[9] It covers 28 percent of the people in the US with employer-sponsored insurance and includes about 4.5 billion claims from three of the five largest US insurers: Aetna, Humana, and UnitedHealthcare. However, it does not include claims for people with coverage provided by Blue Cross Blue Shield (BCBS) insurers. Accordingly, we tested our results for robustness in HRRs where BCBS insurers had above- or below-median market share.

ANALYSIS We calculated spending per beneficiary by summing total inpatient, outpatient, and physician spending for each person in our data in each HRR per year. To get the total number of private enrollees per HRR, we summed the member months of coverage per HRR per year and divided by twelve. Following the approach taken by the Dartmouth Institute, we risk-adjusted our HCCI spending samples for age and sex. While the Dartmouth team is able to risk-adjust for race differences across HRRs, we could not because we did not have a reliable race field in our HCCI sample. More details are available online about how the Dartmouth Institute constructed the measures of Medicare spending per fee-for-service beneficiary.[10]

For analyses of growth rates over time, in most instances we present the rates as compound annualized growth rates. To calculate these rates, we divided the spending levels in 2014 by the spending levels in 2007, raised the fraction to the power of 1 divided by 7 (for our seven-year study period), and subtracted 1 from the final result. The annual health spending data were inflation adjusted using the All Items Consumer Price Index from the Bureau of Labor Statistics. All figures are in 2014 dollars.

LIMITATIONS Our work had four primary limitations. First, we relied on a sample of private insurance spending drawn from three of the five largest insurers in the US. While we captured more than $106 billion per year in private health spending, spending patterns may have differed for patients covered by other commercial insurers. However, the low correlation we observed in spending growth between Medicare beneficiaries and private enrollees across HRRs was robust across areas where BCBS insurers had either high or low market share.

Second, our data on Medicare spending came only from the fee-for-service Medicare population. We did not have data on beneficiaries

enrolled in Medicare Advantage and therefore could not speak to the correlation between the growth in spending on people with employer-sponsored coverage and that for people enrolled in MA plans. Historically, MA plans have attracted healthier beneficiaries than fee-for-service Medicare has.[11] There is some evidence that rates of favorable selection into Medicare Advantage have increased over time.[12] To the extent that healthier patients are increasingly departing from traditional Medicare over time and leaving the fee-for-service program with a progressively riskier population, this would lead to an overstatement of the already low rates of growth that we observed for the fee-for-service Medicare program.

Third, while our data included spending on injectable and infused drugs administered by physicians, we did not include spending on prescription drugs obtained by patients from pharmacies. Drug spending accounts for approximately 10 percent of total US health spending.[13] As a result, while including drug spending would have been unlikely to dramatically affect our results, it could have altered the correlations we observed in spending growth across the two populations.

Fourth, we did not analyze why there were different patterns of growth across the two populations. The drivers of these differences could include differences in how providers are paid, differential use and adoption of new technologies, and differences in the mix of services delivered to Medicare beneficiaries and people with private insurance. This is an important topic that should be explored in future work.

Study Results

Private spending per employer-sponsored insurance enrollee increased from $3,304 in 2007 to $3,864 in 2014—a growth rate of 16.9 percent. Conversely, Medicare spending per beneficiary decreased 1.2 percent during the same period, from $9,706 to $9,586. The online appendix provides trends in total, inpatient, and outpatient spending for the two populations.[14] Similar to total spending (appendix exhibit 1.1), inpatient spending for Medicare enrollees decreased, while inpatient spending on the privately insured increased slightly (appendix exhibit 1.2).[14] By contrast, outpatient spending for both populations rose considerably during this period (appendix exhibit 1.3).[14] Appendix exhibit 1.4 compares the changes in spending over time measured using the HCCI and Dartmouth Institute data and data from the National Health Expenditure Accounts (NHEA) of the Centers for Medicare and Medicaid Services.[14] The trends in our data were consistent with those in the NHEA data.

For private spending, HRRs in the tenth percentile experienced a compound annualized growth rate of 0.22 percent in the period 2007–14, while the median HRR had a rate of 2.02 percent, and HRRs in the ninetieth percentile had a rate of 3.45 percent (exhibit 1). There was more variation in HRR-level growth rates for the privately insured across HRRs than there was for the fee-for-service Medicare population. The standard deviation of the HRR-level compound annualized growth rates in private spending was 1.26 percent, compared to 0.80 percent in Medicare spending. HRRs in the tenth percentile of fee-for-service Medicare spending growth had a rate of –0.86 percent, and those in the ninetieth percentile had a rate of 0.94 percent.

All but nineteen of the HRRs in our data had growth in real spending per private insurance enrollee during this period (exhibit 2). By contrast, approximately half of the HRRs experienced an increase in Medicare spending per beneficiary, and half experienced a decrease. The maps illustrate that there was little correlation between private and Medicare spending growth rates across HRRs. Maps for inpatient and outpatient spending are presented in the appendix.[14] Appendix exhibit 2.1 shows that nearly two-thirds of HRRs experienced growth in inpatient spending on the privately insured, while

EXHIBIT 1

Growth in spending for people with employer-sponsored private insurance or fee-for-service Medicare, 2007–14

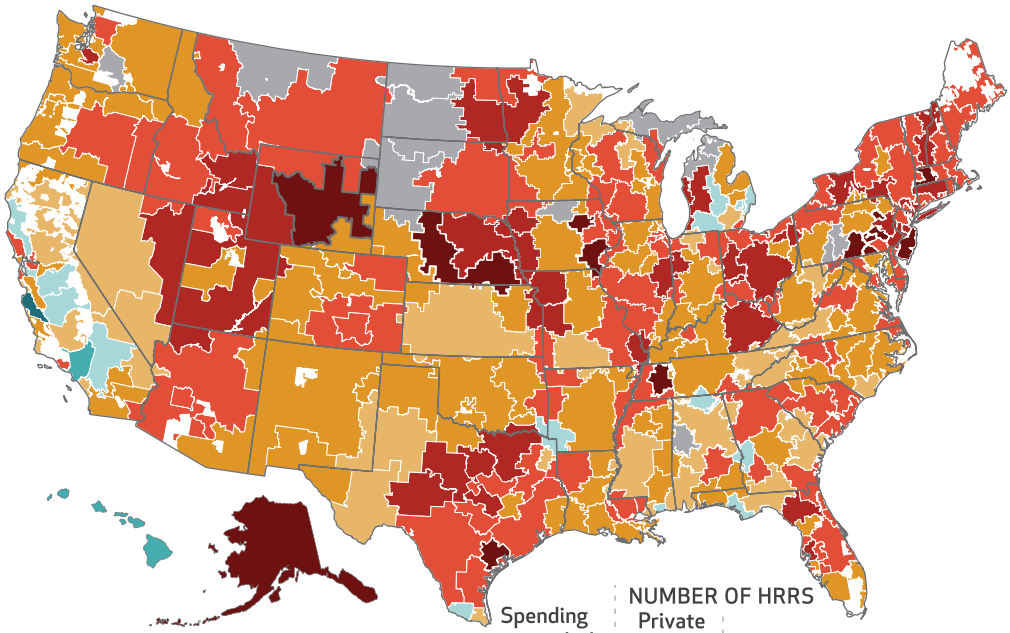
			Percentile				
Spending growth	**Mean**	**SD**	**10th**	**25th**	**50th**	**75th**	**90th**
Private insurance	1.99%	1.26	0.22%	1.34%	2.02%	2.84%	3.45%
Fee-for-service Medicare	–0.08%	0.80	–0.86%	–0.47%	–0.04%	0.44%	0.94%

SOURCE Authors' analysis of data from the Health Care Cost Institute and the Dartmouth Atlas. **NOTES** Mean growth rates across hospital referral regions are compound annualized growth rates for the period 2007–14, as explained in the text. They are weighted by the number of either privately insured enrollees or fee-for-service Medicare beneficiaries in each population. Spending is normalized to 2014 US dollars using the All Items Consumer Price Index. SD is standard deviation.

EXHIBIT 2

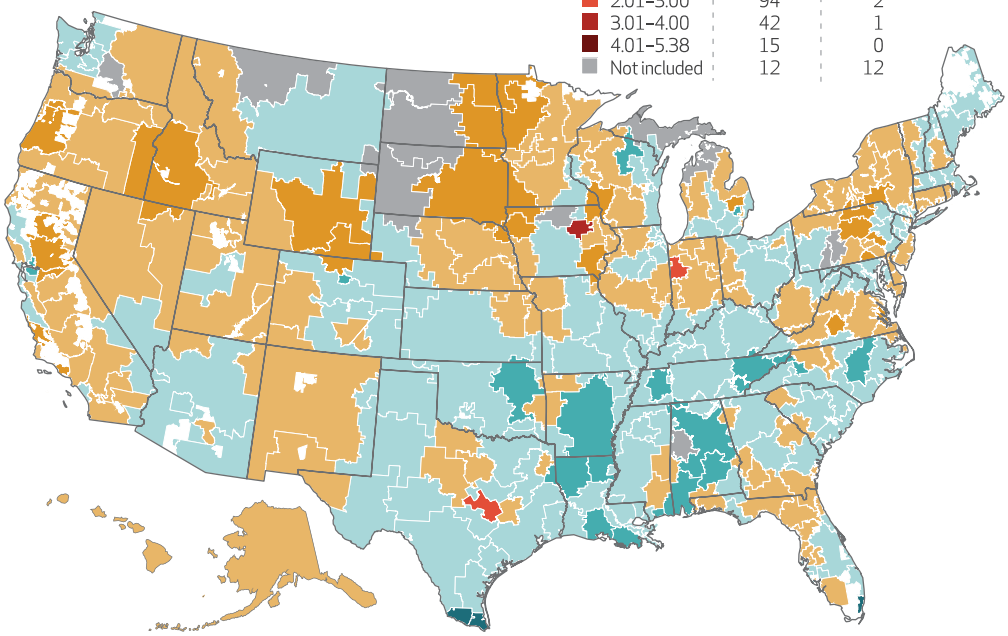
Geographic distribution of growth rates in total spending per person in hospital referral regions (HRRs) for people with employer-sponsored private insurance or Medicare, 2007–14

PRIVATE INSURANCE



Spending growth (%)	NUMBER OF HRRS: Private insurance	NUMBER OF HRRS: Medicare
-3.96–-2.01	1	3
-2.00–-1.01	2	20
-1.00–-0.01	16	134
0.00–1.00	36	110
1.01–2.00	88	24
2.01–3.00	94	2
3.01–4.00	42	1
4.01–5.38	15	0
Not included	12	12

MEDICARE



SOURCE Authors' analysis of data from the Health Care Cost Institute (HCCI) and the Dartmouth Atlas. **NOTES** Growth rates are compound annualized growth rates for the period 2007–14, as explained in the text. Total spending includes spending on physician fees and inpatient and outpatient spending by insurers and beneficiaries. Spending is normalized to 2014 US dollars using the All Items Consumer Price Index. Private and Medicare spending are adjusted for age and sex using indirect adjustment. Medicare spending is also adjusted for race. The sample is limited to the HRRs that had at least 5,000 beneficiaries in each year of the period in the HCCI database. "Not included" refers to the 12 HRRs with fewer than 5,000 annual enrollees. The sample of privately insured is limited to people ages 0–64.

only 8 percent of HRRs had positive growth in inpatient spending for people with Medicare.[14] However, appendix exhibit 2.2 shows that nearly all of the 294 HRRs in our sample experienced outpatient spending growth in both the Medicare and privately insured populations.[14]

We found a correlation of 0.211 between private insurance and Medicare growth in spending per person at the HRR level. The low correlation is consistent with the correlation of 0.20 found in Chernew and colleagues' analysis of the correlation between Medicare and private growth rates across HRRs in 1996–2006.[5] While 130 of the 294 HRRs in our sample experienced spending growth in both populations, 12 experienced reductions in spending on both populations (exhibit 3): Alameda County, CA; Detroit, MI; Gulfport, MS; Huntsville, AL; Kalamazoo, MI; Lansing, MI; McAllen, TX; Napa, CA; Panama City, FL; Pontiac, MI; Salinas, CA; and Texarkana, AR. Finally, seven HRRs experienced growth in Medicare spending and reductions in private spending, and 145 experienced reductions in Medicare spending and growth in private spending. The appendix provides similar scatterplots for inpatient and outpatient spending (appendix exhibits 3.1 and 3.2).[14]

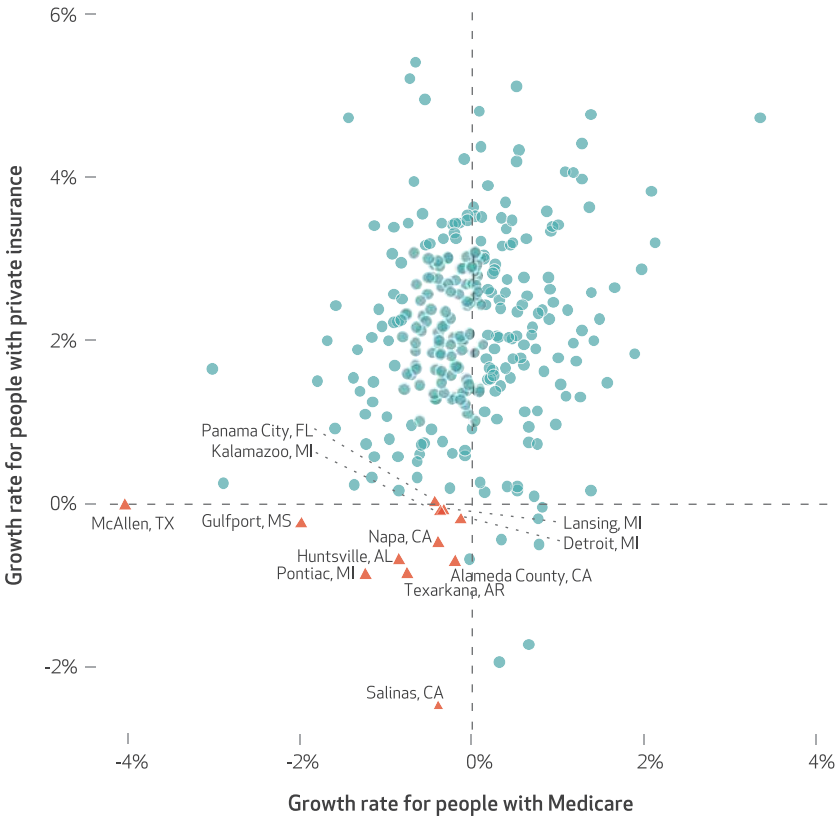
There is a concern that differences in demographic characteristics between Medicare beneficiaries and the privately insured HCCI sample could have driven our results. To rule this out, we also analyzed private health spending on people ages 55–64. When we correlated HRR-level spending growth on this sample of privately insured enrollees and Medicare beneficiaries, we also observed a similar correlation in the growth in spending per person across HRRs of 0.244.

To illustrate the robustness of our results, we also measured the correlation between private and Medicare spending growth across HRRs in areas where BCBS insurers had high or low market shares. As stated earlier, the HCCI database does not include data from BCBS plans, so the HCCI data contributors have a lower market share in areas where BCBS plans are dominant. The patterns we observed in our data could differ in markets where the HCCI insurers had a low versus high a market share. However, we observed that in HRRs where BCBS insurers had an above-median market share (above 47 percent of lives in the HRR), the correlation between private and Medicare spending growth was 0.180. In HRRs where BCBS insurers had a below-median market share, the corresponding correlation was 0.267. In other words, there was no qualitatively large difference in our results in areas where the HCCI insurers had high versus low market share.

Exhibit 4 presents the HRRs with the highest and lowest growth rates in private spending and Medicare fee-for-service spending during this period. Binghamton, NY; Casper, WY; Reading, PA; Temple, TX; Waterloo, IA; and York, PA, were in the twenty regions with the highest growth rate for both Medicare and the privately insured (exhibit 4). Conversely, Gulfport, MS; McAllen, TX; and Pontiac, MI, were in the twenty regions with the lowest growth rate for both populations.

EXHIBIT 3

Growth rates in total spending in hospital referral regions (HRRs) per person for people with employer-sponsored private insurance or Medicare, 2007–14



SOURCE Authors' analysis of data from the Health Care Cost Institute and the Dartmouth Atlas. **NOTES** Each point in the scatterplot represents an HRR. The labeled HRRs are those with negative growth in both Medicare and private spending. There were 12 such HRRs, 145 with positive growth rates for the privately insured alone, 7 with positive growth rates for people with Medicare alone, and 130 with positive growth rates for both types of beneficiaries. The correlation between HRR-level growth in private and Medicare spending per person was 0.211. Growth rates, total spending, and spending adjustment are explained in the notes to exhibit 2. The samples of HRRs and the privately insured are limited as explained in the notes to exhibit 2. Spending is normalized to 2014 US dollars using the All Items Consumer Price Index.

Discussion

US health spending has increased steadily since 1960. In this study we analyzed growth in health spending on Medicare beneficiaries and people with employer-sponsored private health insurance in the period 2007–14. Whereas Medicare

EXHIBIT 4

Bottom and top 20 hospital referral regions (HRRs) in growth in total spending per enrollee in employer-sponsored private insurance or fee-for-service Medicare, 2007–14

Bottom 20 HRRs				Top 20 HRRs			
Private insurance		Medicare		Private insurance		Medicare	
Name	Growth (%)	Name	Growth (%)	Name	Growth (%)	Name	Growth (%)
Salinas, CA	−2.52	McAllen, TX[a]	−3.96	Wilkes-Barre, PA	5.38	Waterloo, IA[b]	3.35
Los Angeles, CA	−1.98	Miami, FL	−2.96	Newark, NJ	5.18	Lafayette, IN	2.15
Honolulu, HI	−1.77	Harlingen, TX	−2.82	Anchorage, AK	5.08	Temple, TX[b]	2.10
Pontiac, MI[a]	−0.91	Gulfport, MS[a]	−1.93	Victoria, TX	4.93	La Crosse, WI	1.99
Texarkana, AR	−0.90	Boulder, CO	−1.74	Camden, NJ	4.78	Stockton, CA	1.91
Alameda County, CA	−0.75	Monroe, LA	−1.63	York, PA[b]	4.73	Grand Forks, ND	1.68
Huntsville, AL	−0.72	Johnson City, TN	−1.54	Waterloo, IA[b]	4.70	Lynchburg, VA	1.60
Royal Oak, MI	−0.72	Montgomery, AL	−1.53	Jackson, TN	4.69	Newport News, VA	1.51
Fresno, CA	−0.54	Jackson, TN	−1.38	Casper, WY[b]	4.38	Danville, PA	1.44
Napa, CA	−0.50	Lafayette, LA	−1.32	Lincoln, NE	4.35	Sioux Falls, SD	1.42
San Bernardino, CA	−0.47	Wausau, WI	−1.31	Paterson, NJ	4.31	York, PA[b]	1.41
Gulfport, MS[a]	−0.28	Houma, LA	−1.28	Springfield, MA	4.19	Chico, CA	1.40
Detroit, MI	−0.23	Raleigh, NC	−1.25	Harrisburg, PA	4.17	Fargo ND	1.38
Columbus, GA	−0.23	Little Rock, AR	−1.19	Iowa City, IA	4.03	Binghamton, NY[b]	1.30
Lansing, MI	−0.13	Pontiac, MI[a]	−1.19	Reading, PA[b]	4.02	Casper, WY[b]	1.30
Kalamazoo, MI	−0.12	Birmingham, AL	−1.18	Binghamton, NY[b]	3.95	Ventura, CA	1.30
Modesto, CA	−0.09	Knoxville, TN	−1.12	Cape Girardeau, MO	3.91	Eugene, OR	1.28
McAllen, TX[a]	−0.06	Contra Costa, CA	−1.12	Hackensack, NJ	3.87	Salem, OR	1.24
Panama City, FL	−0.02	Tulsa, OK	−1.11	Temple, TX[b]	3.79	Reading, PA[b]	1.21
Santa Barbara, CA	0.05	Hickory, NC	−1.10	Fort Worth, TX	3.66	Sayre, PA	1.20

SOURCE Authors' analysis of data from the Health Care Cost Institute and the Dartmouth Atlas. **NOTE** Total spending is defined in the notes to exhibit 2. [a]HRR is in the twenty slowest-growing HRRs for both private and Medicare spending. [b]HRR is in the twenty fastest-growing HRRs for both private and Medicare spending.

spending per fee-for-service beneficiary decreased by 1.2 percent in real terms during this period, spending per private insurance enrollee increased by 16.9 percent. Of note, there was substantial variation in the growth rates for private health spending across HRRs (less so for Medicare spending). This variation suggests that some regions are more successful than others at constraining health spending growth. This is particularly apparent in HRRs where there were negative growth rates in both Medicare and private spending. Going forward, more work is necessary to increase understanding of how and why some regions have lower rates of spending growth for both fee-for-service Medicare beneficiaries and people with employer-sponsored private coverage.

Consistent with the results of prior work, across HRRs overall our study found a low correlation in growth rates between private health spending and spending on fee-for-service Medicare beneficiaries. This result was robust when we limited our analysis to privately insured people ages 55–65 and to HRRs where BCBS insurers had high or low market shares.

This divergence in growth rates suggests that at least during our study period, different factors were driving health spending growth in the Medicare and privately insured populations. Prior work has demonstrated that there is a low cross-sectional correlation between HRR-level health spending on fee-for-service Medicare beneficiaries and that on people with private health insurance.[4,5] One driver of this low correlation is the low correlation between the regulated payments in fee-for-service Medicare and the prices that health care providers and insurers negotiate for care. It is likely that differences in growth rates between regulated fee-for-service Medicare provider payments and providers' negotiated transaction prices are also driving some of the difference in the growth in spending across these two populations. Indeed, recent work has found that in the short run, growth in providers' prices is driving growth in private health spending.[15]

Additional potential drivers of the differential rates of spending growth across the two populations include differences in the mix of care delivered to the populations (and differences in how those mixes of care changed over time) and

differences in the rates at which new technology was adopted and used for care delivered to the two populations. Future work should analyze the factors driving Medicare and private spending growth.

This research has one very clear implication for public policy: Given the low correlation between the growth in private health spending on people with employer-sponsored coverage and the growth in spending on fee-for-service Medicare beneficiaries, separate policies will be necessary to curb spending growth in the two populations. Future work should also assess the factors that lead to slow growth in private health spending in some HRRs and faster growth in others.

Conclusion

Using data on 28 percent of people in the US with employer-sponsored private health insurance, we observed substantial variation across HRRs in the growth rates of spending on privately insured people in the period 2007–014—more variation than we saw in fee-for-service Medicare growth rates across HRRs. In addition, the correlation between the growth of health spending on privately insured people and fee-for-service Medicare beneficiaries across HRRs in the study period was 0.211. This suggests that different factors may be driving spending growth across the two populations. ■

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U.S. Health Reform—Monitoring and Impact

The Marketing of Short-Term Health Plans: An Assessment of Industry Practices and State Regulatory Responses

January 2019

By Sabrina Corlette, Kevin Lucia, Dania Palanker, and Olivia Hoppe

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With support from the Robert Wood Johnson Foundation (RWJF), the Urban Institute is undertaking a comprehensive monitoring and tracking project to examine the implementation and effects of health reform. The project began in May 2011 and will take place over several years. The Urban Institute will document changes to the implementation of national health reform to help states, researchers and policymakers learn from the process as it unfolds. Reports that have been prepared as part of this ongoing project can be found at **www.rwjf.org** and **www.healthpolicycenter.org**.

EXECUTIVE SUMMARY

A 2018 federal rule changing the definition of short-term limited-duration insurance (STLDI) has created a new marketing opportunity for insurance companies and brokers. STLDI, once limited to a three-month contract duration, can now be sold as full-year substitute coverage for traditional health insurance. STLDI is also exempt from the consumer protections and standards prescribed by the Affordable Care Act (ACA).

STLDI, depending on how it is marketed and sold, can be risky for consumers because many buy these plans mistakenly believing that they are as comprehensive as traditional, ACA-compliant plans. A growing market for STLDI plans also places new demands on state insurance departments, which are responsible for overseeing insurers and consumer protection. This study assesses short-term limited-duration insurers' marketing tactics in the wake of the new federal rules and, through interviews with insurance officials in Colorado, Florida, Idaho, Maine, Minnesota, Missouri, Texas, and Virginia, how regulators have evaluated and prepared for this new market. Key findings include the following:

- State officials have mixed views on short-term plans' benefits for consumers but generally agree they pose several risks, including coverage denials because of health status, refusal to cover services because of a preexisting condition, the retroactive cancellation of coverage for enrollees with certain medical claims, and surprise balance billing because of a lack of in-network providers. Some states have issued warnings and advisories to help educate consumers about the benefits and risks, but their capacity to widely disseminate educational materials and fully inform consumers is limited.
- State officials lack comprehensive data about which insurers actively market STLDI to their residents, with one official calling it "one of our biggest blind spots." However, most state regulators report that they have begun to, or plan to, identify the short-term limited-duration insurers operating in their state.
- Our marketing scan suggests that consumers shopping online for health insurance, including those using search terms such as "Obamacare plans" or "ACA enroll," will most often be directed to websites and brokers selling STLDI or other non–ACA compliant products. These websites and brokers often fail to provide consumers with the plan information necessary to inform their purchase. Brokers selling STLDI over the phone push consumers to purchase the insurance quickly, without providing written information.
- State insurance departments generally lack the authority and/or capacity to engage in preemptive regulatory oversight that would prevent deceptive marketing tactics before they occur.
- In most states, plan and marketing standards will primarily be enforced retroactively, after insurance regulators receive complaints. Resolving the complaint in favor of the consumer is often challenging because little of the purchase transaction is documented in writing.

Without state oversight of STLDI and insurers' and brokers' marketing tactics, consumers are at risk of being underinsured, and both consumers and providers face significant financial liability if a high-cost medical event occurs.

INTRODUCTION

A 2018 federal rule changing the definition of short-term limited-duration health insurance (STLDI) has created a new marketing opportunity for insurance companies and brokers.[1] Short-term health plans, once limited to a three-month contract, can now be sold as full-year substitute coverage for traditional health insurance. Short-term plans are also exempt from Affordable Care Act (ACA) standards that prohibit eligibility and price discrimination against people with preexisting conditions, as well as requirements to cover a minimum set of essential health benefits and cap enrollees' out-of-pocket costs.

Short-term plans, depending on how they are marketed and sold, can be risky for consumers because many buy these plans mistakenly believing that they are as comprehensive as traditional, ACA-compliant plans. The growing market for these plans also places new demands on state insurance departments, which are primarily responsible for overseeing insurers and consumer protection. This study assesses insurers' tactics for marketing short-term plans in the wake of the federal rule and how insurance regulators in eight states have evaluated and prepared for this new market.

BACKGROUND

Short-Term Plans Versus ACA-Compliant Coverage: Key Differences

Short-term health insurance products are not new. Before the ACA, people used short-term health insurance to fill gaps in coverage, such as when transitioning between school and a job or during a waiting period for an employer-sponsored plan. Under existing federal law, however, short-term policies are not considered individual health insurance coverage, and thus are exempt from federal health insurance standards.[2]

When categorized as short-term coverage, STLDI plans do not have to comply with the ACA, including standards such as banning preexisting condition exclusions and rescissions, covering a minimum set of essential health benefits, and limiting enrollees' annual out-of-pocket costs (Exhibit 1). STLDI may also be exempt from many states' health insurance regulations, such as the requirements to annually file policy forms, undergo rate review, and meet state-established benefit mandates.

Because short-term plans cover less and can exclude people with health conditions, they tend to have lower premiums than ACA-compliant options. Proponents of extending short-term plans to 12 months argue that STLDI can be a more affordable alternative to ACA-compliant coverage and provide greater choices for consumers, particularly for those ineligible for ACA marketplace subsidies.[3] Critics, however, argue that short-term plans can expose consumers to financial liability if they have an unexpected medical event. They further argue that the proliferation of short-term plans siphons healthy risk away from ACA-compliant plans, resulting in adverse selection and higher premiums for those products.[4]

Exhibit 1. Federal Consumer Protection Standards for ACA Plans Compared with Short-Term Coverage

Consumer Protection	ACA Plans	Short-Term Coverage
Must issue policies to all applicants, regardless of health status?	Yes	No; can deny coverage to an applicant for any reason, including current or past health status or risk for future health expenses
Includes coverage for preexisting conditions?	Yes	No; can decline coverage or issue policies that exclude coverage for preexisting conditions
Prohibits higher rates based on health status?	Yes	No; can charge a higher rate based on a person's health status
Covers essential health benefits?	Yes	No, coverage varies by plan; benefits like maternity care, mental health care, and prescription drugs are often excluded
Prohibits dollar caps on coverage of services?	Yes	No; can include a dollar cap on covered services and stop paying medical bills after cap is reached
Caps enrollees' out-of-pocket expenses?	Yes	No; may not limit consumer out-of-pocket costs

Just as with ACA-compliant health insurance, consumers can purchase short-term plans through an insurance broker or directly from an insurance company. Many consumers purchase short-term policies through web-based brokers and even over the phone.[5] For short-term plans with a January 1, 2019, effective date, federal rules require the application materials to include the following disclosure:

> *This coverage is not required to comply with certain federal market requirements for health insurance, principally those contained in the Affordable Care Act. Be sure to check your policy carefully to make sure you are aware of any exclusions or limitations regarding coverage of preexisting conditions or health benefits (such as hospitalization, emergency services, maternity care, preventive care, prescription drugs, and mental health and substance use disorder services). Your policy might also have lifetime and/or annual dollar limits on health benefits. If this coverage expires or you lose eligibility for this coverage, you might have to wait until an open enrollment period to get other health insurance coverage.*[6]

One national web broker reported short-term plans as an increasing portion of its commercial business, with as many as 70 percent of unsubsidized customers opting for short-term plans over ACA-compliant coverage for 2019.[7,8] Many insurance brokers report receiving higher commissions from short-term plan insurers than from selling ACA-compliant policies.[3]

The State Role in Regulating Short-Term Plans

States can set standards for STLDI, including contract duration length (several states set a three- or six-month limit), required benefits, minimum medical loss ratios, and prohibit the use of preexisting condition exclusions or rescissions.[9] They can ban the sale of these plans outright, as California has done.[10] States may also oversee these products' marketing and ensure that companies communicate with consumers accurately and honestly. States have several tools to enforce standards and consumer protections, including licensing short-term plan insurers, reviewing short-term plan contracts and rates, and fines or injunctions for deceptive marketing practices or violations of state standards. Further, state insurance departments are responsible for licensing insurance brokers and can withdraw the licenses of, or refer for criminal prosecution, brokers violating the law or engaging in deceptive practices.

METHODOLOGY

Marketing Scan

To assess short-term health plan sellers' marketing tactics, including potential changes to those tactics during open enrollment for 2019 ACA-compliant coverage, we conducted an online marketing scan in two phases: before and during open enrollment. We conducted our first marketing scan, Phase I, between October 22 and 26, 2018. We conducted Phase II between November 11 and 16, 2018. Overall, we analyzed 256 search results and 65 unique websites.

To limit regional bias, we used Google Incognito to search the following terms for each of our eight study states:

- "Cheap health insurance"
- "Short-term health insurance"
- "Obamacare plans"
- "ACA enroll"

Each search term was followed by a study state name (i.e., "cheap health insurance Missouri"). However, Google Incognito does not completely hide the searcher's location, so our marketing scan includes some infrequent geographically irrelevant search results, such as insurance products not for sale within the selected study state. We then analyzed the first four search results, which are often paid advertisements.

Many of these sites are "lead-generating" websites, which do not sell a product. Rather, they ask shoppers to share a phone number and other demographic information, after which the consumer is either directed to another site that sells insurance products or contacted directly by an insurance broker. We created a profile of a consumer seeking health insurance who was age 29, in good health, currently uninsured, and had an estimated yearly income of $20,000 for 2019 (making her potentially eligible for premium subsidies for ACA-compliant coverage). We also used a standardized set of questions a consumer might ask as a guideline for the phone calls with brokers. The questions included:

- "What are my cheapest options?"
- "What does the health plan cover?"
- "Is this health plan Obamacare, or is it something else?"
- "If I have [example of unexpected medical event], will it be covered?"

We answered six broker calls after entering a phone number into these sites between October 26 and December 3, 2018. We took detailed notes of these interactions.

In addition to the Google Incognito scan, we compared information on short-term plans from the websites of the following top-selling short-term health plan insurers, both before and during open enrollment:

- IHC Group
- Pivot Health
- Everest Re Group
- National General
- UnitedHealthOne

Interviews with State Officials

To assess how state regulators prepared for the new market for short-term health insurance, we conducted structured interviews with department of insurance officials in eight states (Colorado, Florida, Idaho, Maine, Minnesota, Missouri, Texas, and Virginia) between October 26 and December 3, 2018. We selected these states to reflect diverse geography and regulatory approaches. Of the eight states, Colorado and Minnesota require short-term plans to adhere to a shorter contract duration than required by federal law (Exhibit 2).

Exhibit 2. State Laws Limiting Short-Term Health Plans' Contract Duration

State	Does State Limit Initial Contract Duration of Underwritten Short-Term Coverage to Less Than 364 Days?
Colorado	Yes (six months)
Florida	No
Idaho	No
Maine	No
Minnesota	Yes (185 days)
Missouri	No
Texas	No
Virginia	No

Source: Georgetown University Center on Health Insurance Reforms and The Commonwealth Fund. What is Your State Doing to Affect Access to Adequate Insurance?" https://www.commonwealthfund.org/publications/interactive/2018/nov/what-your-state-doing-affect-access-adequate-health-insurance. Published November 15, 2018. Accessed December 31, 2018.

FINDINGS

State Officials Have Mixed Views of the Benefits of the Short-Term Health Insurance Market

In all eight study states, insurers can market short-term health plans. In several study states, officials expressed concerns about the marketing of short-term plans as a "replacement coverage" option for ACA-compliant plans, but without the accompanying consumer protections. "We prefer people to have ACA-compliant coverage," one official said. However, most interviewed regulators were not unduly alarmed by the potential expansion of the short-term health plan market.

A few state regulators noted that the short-term market long predated the ACA and provides an option for consumers who can't afford ACA-compliant plans or need to fill a short gap in coverage. Some were also skeptical that the short-term market would grow enough to create adverse selection in the ACA-compliant market. One official said their department "is not anticipating a huge short-term market," noting further that many consumers ineligible for ACA subsidies have already dropped out of the ACA-compliant market. In this view, even a short-term plan with limited financial protection is better than no insurance.

A few state regulators voiced concerns that many consumers will not understand what they are purchasing, and that some may mistakenly believe they are buying ACA-compliant coverage. Regulators agreed that several common industry practices pose risks to consumers seeking or enrolled in short-term health plans, including coverage denials because of health status, refusal to cover services because of a preexisting condition, the rescission of coverage for enrollees with certain medical claims, and surprise balance billing because of a lack of in-network providers.

State Regulators Are Working to Collect Data on Who Is Selling and Buying in the Short-Term Market

In most study states, regulators reported being "in the process" of gathering and assessing data about the companies that market short-term health plans and the consumers who buy such coverage. Though all regulators in our study agreed on the value of having good data about the short-term market, they reported challenges in obtaining the information needed to ensure adequate oversight.

First, though state regulators reported that insurers are required to become licensed in the state and file their plans, they often do not have a mechanism to know what products insurers actively market to consumers. This is "one of our biggest blind spots," said one state official. Second, in at least some study states, officials acknowledged that short-term plans are sold through out-of-state associations that are not required to comply with state standards or to file their products or rates for regulatory review.

However, most study state officials reported that they have begun to, or plan to, better identify the insurers marketing in their state. For example, the Maine and Idaho insurance departments can track short-term plan market growth through annual data submissions on premium revenue and enrollment, respectively.[11] Colorado is requiring short-term plan sellers to file forms and rates annually.[12] In the wake of the new federal standards, Virginia is requiring short-term plan insurers to refile their policies with the state. Another state insurance department is considering withdrawing its approval of all currently approved short-term plans and requiring them to refile. They believe this will "flush out," or reveal, the companies intending to actively market in the state in 2019.

However, though some states are asking insurers to refile their short-term plans and rates because of the new federal rule, many states' regulators lack the authority to reject or require modifications to the policies before they are sold. In addition, short-term plan insurers do not generally have to refile their plans or rates annually with the state (unlike ACA-compliant coverage), unless there is a "material" change in the benefit design or formula by which the insurer sets its rates. Further, states may never conduct a regulatory review of short-term plans sold through out-of-state insurers.

Some States Are Attempting to Educate Consumers about Short-Term Plans

Regulators in our study states acknowledged that many consumers would likely be confused about the differences between short-term plans and ACA-compliant coverage. These concerns prompted the Colorado, Florida, and Maine insurance departments to issue public advisories and frequently asked questions (FAQs) before and during 2019 open enrollment to help consumers better understand their purchases.[13]

Maine instructed brokers to improve consumer disclosures, noting that their "duty of competence includes ensuring that consumers considering [short-term] policies are fully advised of the terms, benefits, and limitations of the coverage."[14] In another study state, local brokers complained to state regulators about potential deceptive and aggressive marketing of short-term plans over the internet and phone. In response, the department of insurance is considering a standard disclosure form that all brokers must follow when counseling consumers on short-term plans.

Marketing Scan Suggests Obtaining Information about Insurance Options Is Difficult

Consumers are likely to have difficulty obtaining the information necessary to make an informed insurance purchase, if the results of our marketing scan are representative of many consumers' experiences. Specifically, our marketing scan found the following:

- Even during ACA open enrollment, only 19 percent of searches using the previously delineated terms (see methodology section) returned sites offering solely ACA-compliant plans. Before open enrollment, the return was less than 1 percent (Exhibit 3).
- Generally, regardless of the search terms used, companies selling short-term plans dominated the returns. However, short-term plan insurers' and brokers' sites appeared more frequently when we searched for "short-term health insurance."
- Lead-generating sites[15] that point consumers to short-term plans or other non–ACA compliant insurance products were the most common search result in every state, representing more than half of all search results before and during open enrollment.
- Lead-generating sites and other sites connecting consumers directly to web brokers or insurers provide limited, if any, information about plan benefits, cost sharing, or rates.
- Of the two web brokers that appeared in our results, the one selling ACA-compliant plans appeared half as often as the web broker selling only short-term plans and did not appear in results before open enrollment.
- The short-term plan insurers' websites provide more information about their plans, such as premiums and plan brochures, than the lead-generating sites, but the insurers' websites do not appear in top search results.
- Many brokers conducting phone sales use aggressive sales tactics, encouraging consumers to purchase coverage over the phone with minimal plan information; most refuse to provide written plan materials or discontinue the call when asked for such materials.
- We posited that STLDI issuers and brokers would more actively market their product as a substitute for ACA coverage (not just as short-term gap insurance) during

Exhibit 3. Search Term Results, Phases I and II

Lead-Generating Websites*	Web Broker	Short-Term Insurer Site	ACA-Compliant Information and Enrollment**	Unrelated to Health Insurance***
Phase I Search Term Results: October 22–26, 2018				
53.9%	14.1%	9.4%	0.78%	21.9%
Phase II Search Term Results: November 11–16, 2018				
55.5%	16.4%	9.4%	18.8%	0%

Notes: *Lead-generating websites require consumers to enter personal information including email, address, and phone number, and then direct consumers to other sites to purchase coverage and/or have brokers reach out to consumers directly.

**ACA-compliant information and enrollment websites provide information or enrollment only for ACA-compliant plans through healthcare.gov or other state-based marketplace websites.

***Results unrelated to health insurance included political campaign, petition, and other websites irrelevant to the sale or purchasing of health insurance.

open enrollment than outside open enrollment. However, in general, we found that the plan descriptions, language, images, and other consumer-facing marketing content did not significantly change between Phases I and II of our scan. In both phases, the marketing content encouraged consumers to consider STLDI as a replacement for ACA-compliant coverage.

Web Searches Point Consumers to Noncompliant Plans and Provide Little Information to Inform Purchases

Across all study states, lead-generating sites were the most common search result.[16] Though several lead-generating sites touted the ACA's open enrollment period to entice consumers to purchase a policy, none directed consumers to healthcare.gov, the official government website where consumers can apply for premium subsidies and enroll in ACA-compliant coverage. Further, these lead-generating sites provide little, if any, information about STLDI plan benefits, cost sharing, or rates. Some of these sites advertise "free" insurance quotes and prompt the consumer to provide personal information, including a phone number. If the consumer enters a phone number, she will usually receive a call from a call center, where an operator will ask screening questions regarding the consumer's age, address, income, and often whether she has any major medical conditions likely to disqualify her from the coverage. From there, the consumer may be connected to an insurance broker.

One website we consider a lead-generating site, healthcare.com, provides some information about rates and cost sharing in specific plans and directs consumers to web brokers and insurer websites once the consumer chooses a plan for purchase. In some, but not all, search results that returned healthcare.com, the site advertised access to ACA "bronze, silver, and gold" plans and short-term plans on the landing page, but only short-term plans appeared for purchase.

Search results and the lead-generating sites raised two web broker sites that allow consumers to enroll in a plan through the website. Agilehealthinsurance.com only sells short-term plans and other non–ACA compliant coverage options. The other web broker site, eHealthinsurance.com, sells short-term plans, ACA-compliant coverage, and other coverage options but appeared in search results half as often as agilehealthinsurance.com during open enrollment and did not appear at all before open enrollment. The web broker sites we viewed provide consumers with access to plan summaries and brochures with some information about covered benefits, cost sharing, and rates. eHealthinsurance.com offers consumers comparative information about both short-term and ACA-compliant plan options. We did not encounter any site that allows consumers to see detailed policy documents, such as a contract of insurance, before sale.

In general, short-term plan insurance companies' websites provide more consumer information and plan details than the lead-generating sites, but these sites made up only 9.4 percent of our search results. However, if a consumer goes directly to these insurance company websites, they may find resources such as FAQs, comparisons with ACA-compliant plans, and blog posts designed to educate consumers shopping for insurance coverage. These sites' content included information about the limits of short-term health plans but primarily highlighted their lower premiums. An FAQ by one short-term insurance company noted that short-term plans are not required to cover the essential health benefits and are not "guaranteed issue," but did not define guaranteed issue. The same FAQs advised readers that the company's short-term plans are less expensive than ACA-compliant plans.

Another insurance company's advice on how to cancel an ACA-compliant plan included the caution that "it's important to carefully consider the potential financial and health

consequences of opting out of comprehensive major medical coverage." It then provided information and links to enroll in one of its short-term plans.[17] Another insurance company noted in its FAQs that people "best served" by short-term plans are "those who are not eligible for premium tax credits (Obamacare subsidies) and those in good health that do not have major significant preexisting conditions."[18]

Brokers Try to Make Quick Sales over the Phone, without Providing Written Information

Our phone conversations with insurance brokers shared common elements. Most brokers would ask questions about the consumer's health status, age, and income. The broker would then provide some general information about the coverage being offered, such as the names of companies offering products, consumer cost sharing for primary and specialist visits, and deductibles. Brokers did not offer information about the type of insurance product they were offering, such as a "short-term" or "marketplace" plan, unless asked by the consumer. For example, only after being asked if the coverage recommended was "an Obamacare plan," did brokers describe the product type. Of the six brokers we spoke with, three recommended ACA-compliant plans when informed that the consumer's income could make her eligible for the ACA's premium tax credits. Two of the three brokers recommending ACA-compliant plans, however, pushed a "bundled" package that included supplementary insurance products in addition to the ACA-compliant plan. The remaining three brokers recommended non–ACA compliant coverage, even after being informed that the consumer's income made her eligible for subsidies and cost-sharing reductions. "Obamacare is only for sick people," one broker told us.

The brokers generally pressed for a quick decision to purchase coverage, and most refused or were reluctant to send written plan information. One agreed to send plan documents via email, but they never arrived. The only broker who agreed to send plan documents recommended an ACA-compliant plan.

State Enforcement of Marketing Violations Will Be Largely Retroactive

Of the eight study states, only Minnesota requires the insurers selling short-term plans to submit their advertising and marketing materials in advance, but no state reviews or approves them before use. In many cases, state regulators believe they lack the legal authority to require such advance approval. Other officials indicated that, even with legal authority, they would not have the staff capacity to review and assess the marketing materials generated by short-term insurers. No state reported conducting secret shopper surveys or a proactive review of insurer or broker websites to assess how they communicate with consumers. State insurance departments can, however, request that insurers provide advertising and marketing material in response to consumer or other complaints, if they have evidence the information is misleading or deceptive, or as part of a market conduct exam. However, retroactive reviews may not be useful to consumers with unpaid medical bills who believe they've made a purchase based on false or inaccurate information provided by the insurer.

Additionally, state regulators acknowledged that, in many cases, resolution of a marketing complaint is challenging. "We do try to hold the company or agent responsible," one regulator asserted, "but many times, unfortunately, it's a 'he said, she said' thing, and we can't prove anything." As our marketing scan revealed, particularly over the phone, the consumer is often urged to purchase the plan before reviewing written plan materials, making it difficult for insurance regulators to later identify clearly fraudulent or deceptive statements.

CONCLUSION

Our marketing scan suggests that consumers shopping online for health insurance will, more often than not, find websites and brokers selling short-term plans as a replacement for ACA-compliant coverage. These websites and brokers often fail to provide consumers with the detailed plan information necessary to inform their purchase. Most often, brokers push consumers to purchase a plan over the phone without seeing written information or time to think about the decision. However, many interviewed state regulators do not have the tools to know which insurers and brokers actively market short-term coverage to their residents and lack the authority to engage in preemptive regulatory oversight that would prevent deceptive marketing practices. Further, though several departments of insurance in our study states have attempted to educate consumers about the differences between short-term and ACA-compliant plans, their capacity to disseminate educational materials and arm consumers before purchasing is limited. In most states, plan and marketing standards will primarily be enforced retroactively, after insurance regulators receive complaints. Resolving the complaint in favor of the consumer is often challenging because little of the transaction, and the information conveyed to the consumer, is documented in writing. Without oversight of short-term plan marketing, consumers are at risk of being underinsured, with significant financial liability if a high-cost medical event occurs.

NOTES

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15. A lead-generating site does not sell a product. Rather, it is a landing page that collects demographic information about a customer interested in a product or service. Once the consumer fills out the information, she is then directed to other sites to purchase the product and/or have a salesperson reach out directly to the consumer.
16. These sites also offer other types of coverage including memberships in health care sharing ministries; fixed indemnity insurance; and products that bundle multiple insurances that are not subject to the ACA, such as a hospital-only policy, a drug discount plan, and fixed indemnity policy. These products are often marketed to appear to offer similar benefits to those of ACA-compliant plans.
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Peterson-Kaiser
Health System Tracker

Long-Term Trends in Employer-Based Coverage

By Matthew Rae, Gary Claxton, Larry Levitt and Daniel McDermott *Kaiser Family Foundation*

SHARE

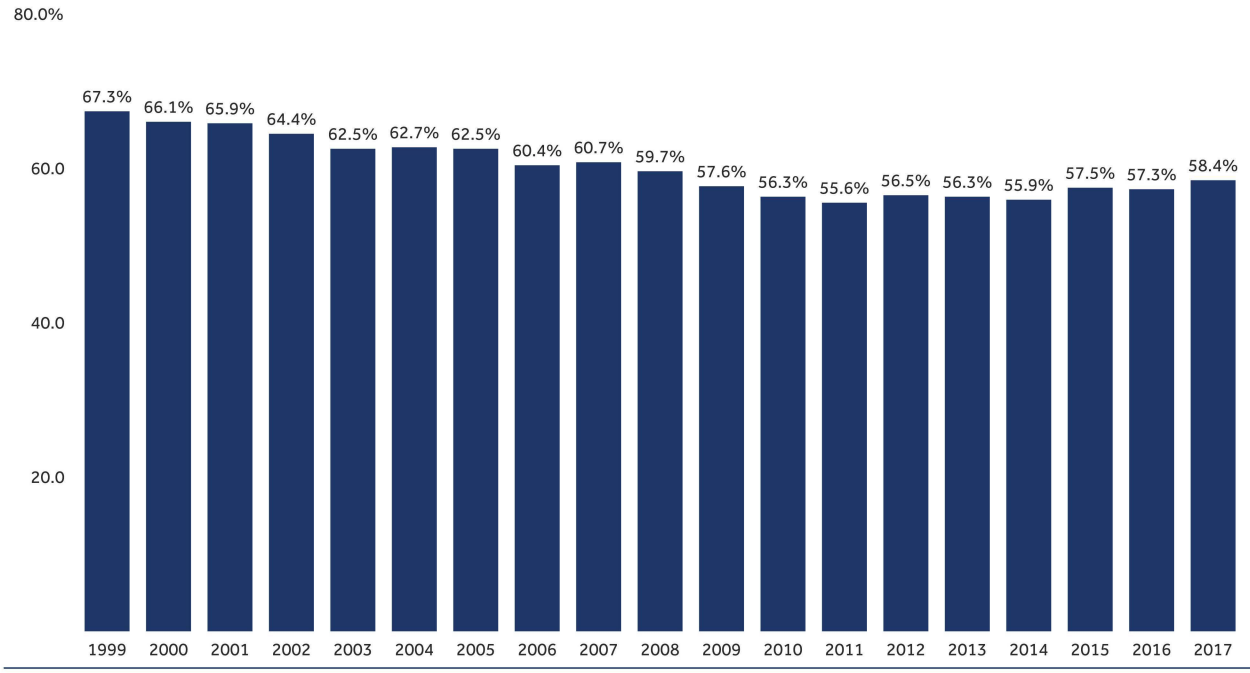
18

Employer-based health insurance is the most important source of health coverage for the nonelderly, covering about 58% of this population in 2017. The workplace has long been a significant source of coverage for those in working families, although its importance has been declining for a number of years, particularly among those in lower and moderate-income households. This brief presents data from the National Health Interview Survey to examine trends in the share of nonelderly people who receive and are offered coverage through a job. A description of our methods is available below.

We find that the share of the nonelderly with employer-sponsored health insurance fell by almost 9 percentage points between 1999 and 2017, with larger percentage reductions generally occurring for income groups below 400% of poverty than above. Overall, if coverage rates had stayed at the 1999 level (67.3%), almost 24 million additional people would have been covered by employer-sponsored plans in 2017. Although the long-term trend shows a decline in the rate of employer-sponsored coverage, the share of people with job-based coverage did rise modestly between 2013 and 2017.

The share of people with employer-sponsored insurance has declined over the past 20 years

Percent of Nonelderly Population Enrolled in Employer-Sponsored Coverage, 1999-2017



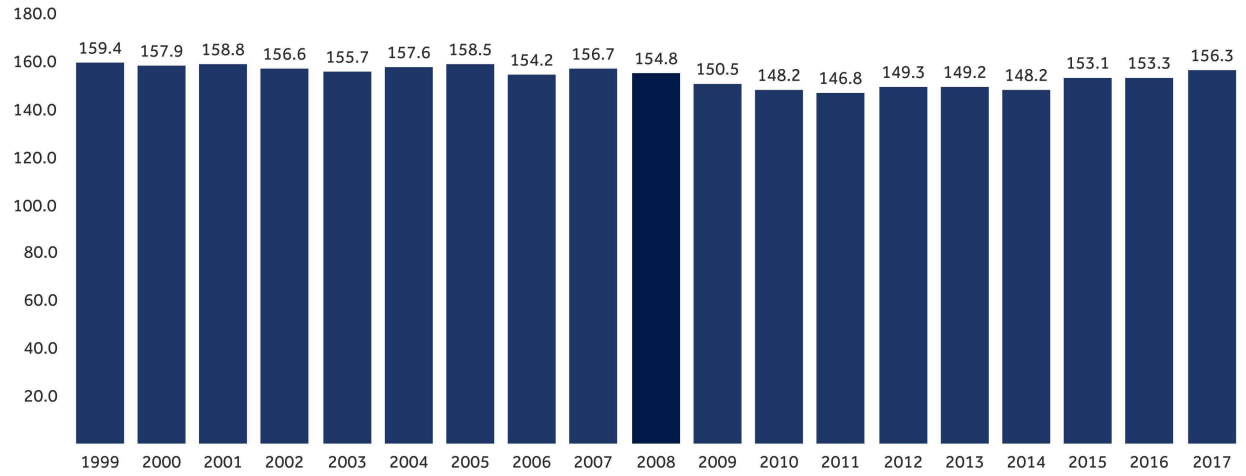
Source: Kaiser Family Foundation analysis of the National Health Interview Survey, 1999-2017. • Get the data • PNG

Peterson-Kaiser
Health System Tracker

The share of the nonelderly covered by employer-based insurance fell from 67.3% in 1999 to 55.6% in 2011. Coverage in employer-based plans recovered somewhat, to 58.4% in 2017, as the economy and employment rates have improved. Nonetheless, if the coverage rate for employer-sponsored insurance was the same in 2017 as it was in 1999 (67.3%), almost 24 million (or 23.8 million) additional people would be covered through an employer plan in 2017.

The total number of people covered by employer-based insurance is roughly the same in 1999 and 2017

Number of Nonelderly People Enrolled in Employer-Sponsored Coverage, 1999-2017, in Millions



Source: Kaiser Family Foundation analysis of the National health Interview Survey, 1999-2017. • Get the data • PNG

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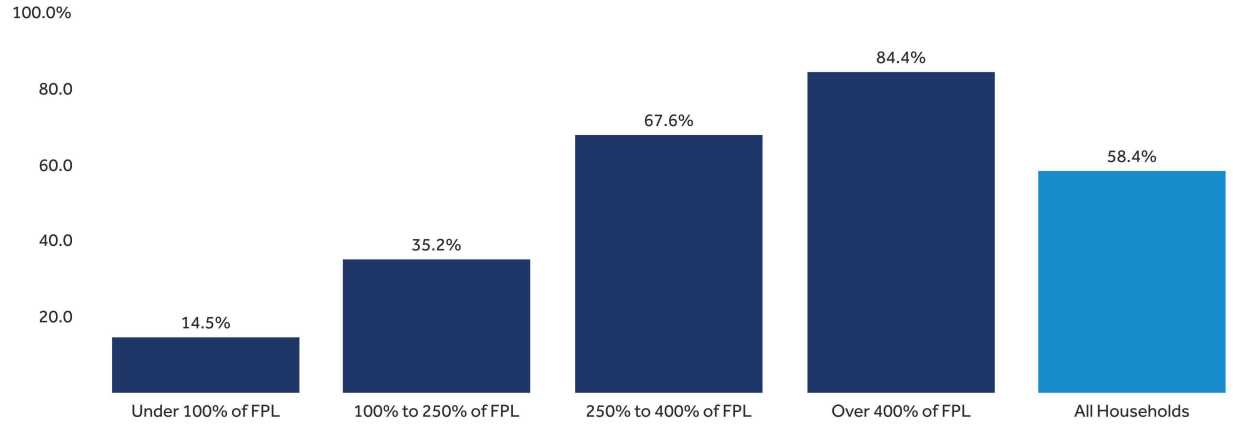
The number of nonelderly people with employer-based insurance has fluctuated within a relatively narrow band over time, even as the nonelderly population grew by 31.5 million people. The number of people covered by employer-sponsored plans fell during the economic slowdown after 2008, and recovered after 2014, reaching about the same number as in 1999.

The prevalence of employer-based insurance varies significantly with household income

Percent of the Nonelderly Population Enrolled in Employer-Sponsored Coverage by Household Poverty Level, 2017



Note: FPL stands for Federal Poverty Level

Source: Kaiser Family Foundation analysis of National Health Interview Survey, 2017. • Get the data • PNG

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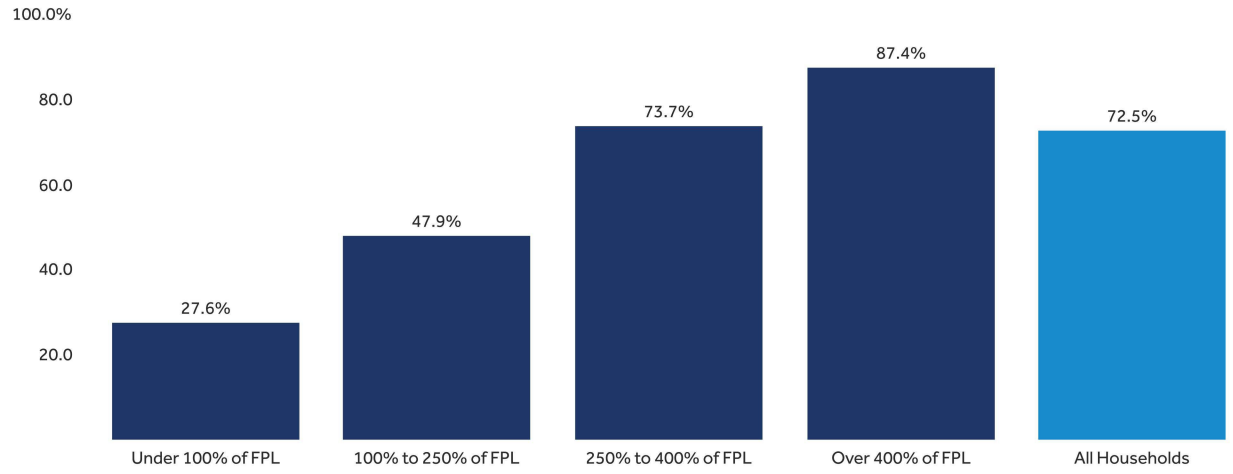
Only 14.5% of nonelderly people with incomes below poverty were covered through a job in 2017, compared to 84.4% with incomes over 400% of the poverty level.

Lower income workers are less likely to have employer-sponsored coverage

Percent of Nonelderly Full-Time Workers Enrolled in Employer-Sponsored Coverage by Household Poverty Level, 2017



Note: FPL stands for Federal Poverty Level

Source: Kaiser Family Foundation analysis of National Health Interview Survey, 2017. • Get the data • PNG

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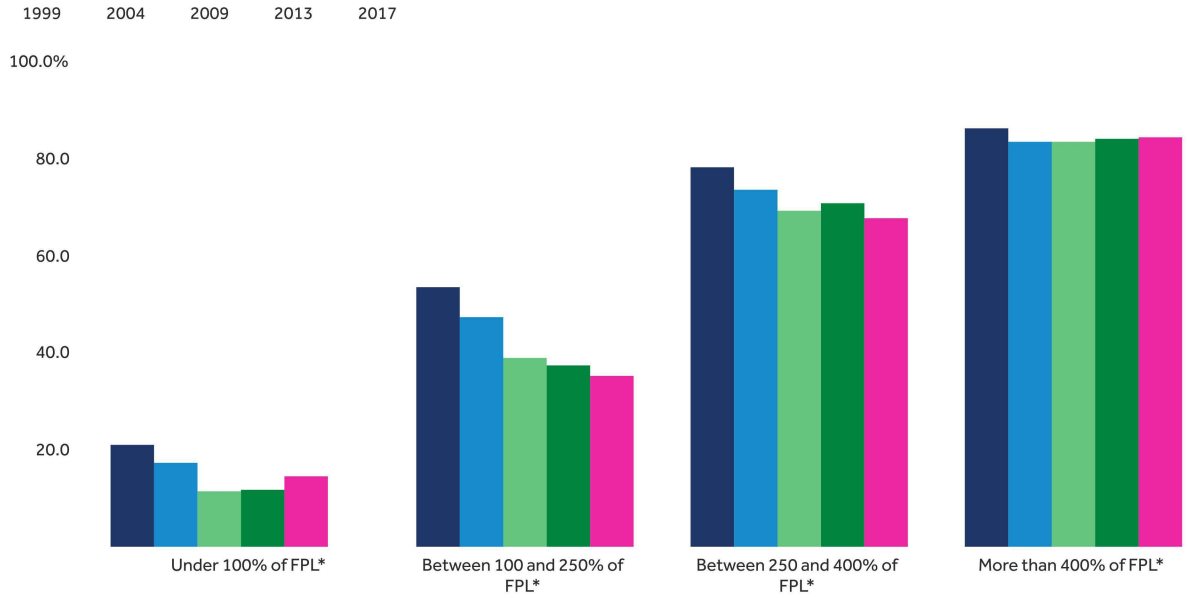
Even among full-time workers, nonelderly people with lower incomes were much less likely to be covered by employer-sponsored coverage in 2017 than those with higher incomes.

The share of people with employer-based coverage fell from 1999 to 2017 in all income groups

Percent of Nonelderly Population Enrolled in Employer-Sponsored Coverage by Household Poverty Level, Selected Years, 1999-2017



Note: * Difference between 1999 and 2017 is statistically significant at p < .05

Source: Kaiser Family Foundation analysis of the National Health Interview Survey, 1999-2017. • Get the data • PNG

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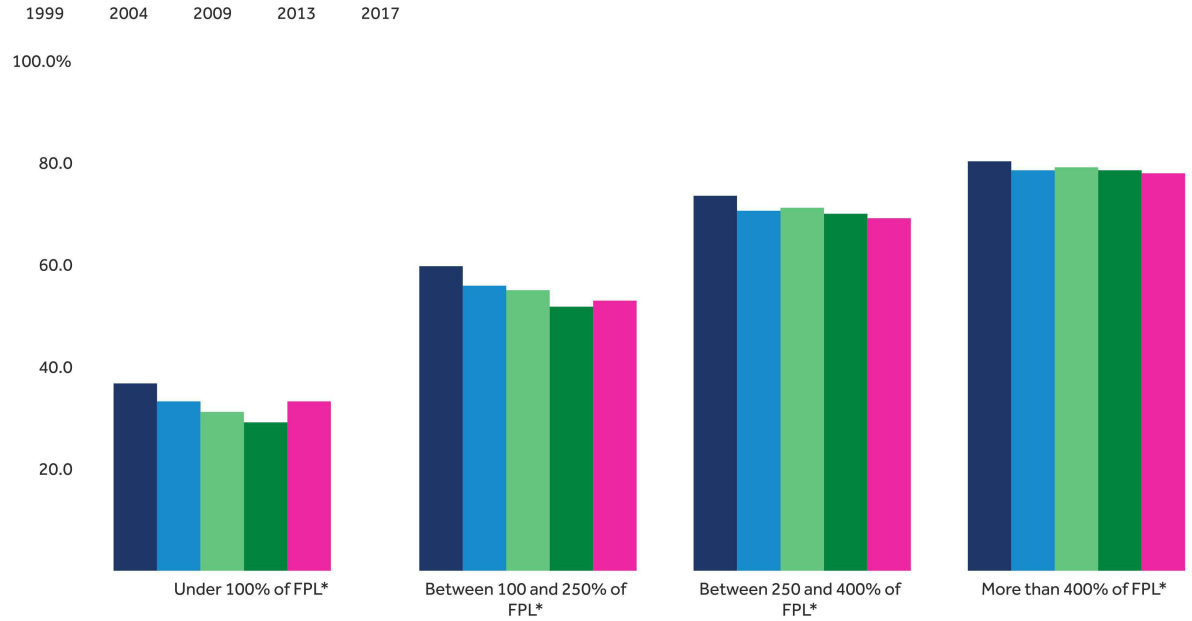
The percentage reductions were smaller for people with incomes above 400% of poverty than for those in lower income groups. Although the coverage share increased between 2013 and 2017 only for those under poverty, the overall share of the nonelderly covered by employer-sponsored plans increased by 2 percentage points (from 56.3% to 58.4%). This occurred because the share of population with incomes over 400% of poverty, where the share of people with employer-based plans is highest, increased significantly over this period. About 7 million more nonelderly people were in employer-sponsored plans in 2017 as compared to 2013.

One potential reason for the drop in employer-sponsored coverage is the drop in percentage of workers offered coverage at their jobs

Percent of Workers Offered Employer-Sponsored Coverage by Household Poverty Level, Selected Years, 1999-2017



Note: * Difference between 1999 and 2017 is statistically significant at p < .05

Source: Kaiser Family Foundation analysis of the National Health Interview Survey, 1999-2017. • Get the data • PNG

Peterson-Kaiser Health System Tracker

During the period from 1999 to 2017, the percentage of workers offered employer-sponsored coverage dropped in each income category, with the largest percentage drops among workers with incomes between poverty and 400 percent of poverty.

The offer rates increased between 2013 and 2017 for workers with incomes below poverty, which may be due to the employer requirement to offer coverage under the Affordable Care Act, although offer rates were largely flat over this period in other income groups.

Discussion

Although the long-term trend is clearly and significantly downward, the coverage rate for employer-sponsored coverage did rise modestly between 2013 and 2017. There are several factors that may help explain the recent trend. One is that the economy improved steadily from the deep downturn in 2008 and 2009, with both incomes and employment increasing, particularly over the last few years. The number of people with full-time employment increased by over 9.5 million between 2013 and 2017. The share of the nonelderly with incomes above 400% of poverty, where employer-sponsored health insurance is most prevalent, also rose significantly during that period.

If coverage rates had stayed at the 1999 level (67.3%), almost 24 million additional people would have been covered by employer-sponsored plans in 2017

Another potential factor was the requirement under the Affordable Care Act (ACA) that people have health insurance or face a tax penalty ("individual mandate"). This may have encouraged some workers to take up coverage at work for themselves or their family members that they may have declined without the individual mandate in place. The ACA also required that employers with more than 50 employees offer coverage to full-time workers; this requirement may have increased the share of workers offered coverage at work, particularly among lower-wage employees. The tax penalty for not having insurance was essentially ended (set

to $0) in the tax bill for years after 2018, which could affect coverage going forward. In a recent survey, almost a quarter of employers with 200 or more workers said that they thought fewer employees or dependents would participate in their plans due to the repeal of the individual mandate.

A complicating factor was the implementation of new coverage rules, premium tax credits and cost-sharing subsidies in the individual health insurance market beginning in 2014 as required by the ACA. These tax credits, which are available to lower income people not offered coverage at work, may have led some smaller employers to stop offering coverage (employers with 50 or more workers are required by the ACA to offer coverage to full-time workers) because their employees might have less expensive options in the individual market. Individual market premiums also were quite low in many places in 2014 and 2015, which may have convinced some small employers that the individual market was a more cost-effective option for their employees. More recently, however, individual market premiums have risen fairly rapidly and family incomes have improved, which has likely reduced the attractiveness of individual coverage as an alternative to employer-based plans. Overall, the number of people with individual coverage fell by about 4 million people between 2016 and 2018, the large majority of which were people not receiving premium tax credits. Enrollment in the ACA marketplace has continued to decline in 2019 (though information is not yet available on enrollment in the individual market outside the marketplace). Given the continuing economic improvement, it is quite possible that some of these people moved into employer-based plans.

Taking a longer-term view, the increases over the last few years brought the number of people covered by employer-sponsored health insurance back to about the same number of people as in 1999, despite nonelderly population growth of 31.5 million people over the period. Coverage in employer-based plans, while still the largest single source of coverage among the nonelderly, has become less important overall and particularly among people with incomes below 400% of poverty. Despite a recent, favorable period, there is no evidence to suggest that the share of nonelderly people covered by employer-based plans will ever approach past levels.

Methods

The National Health Interview Survey (NHIS) is a national probability survey of American Households sponsored annually by the U.S. Census Bureau and the Center for Disease Control and Prevention (CDC). Although NHIS was started in 1957, the survey is redesigned periodically and had a major redesign in 1997. We used survey data back to 1999, which was the first year after the redesign that included all of the insurance categories we typically use (in 1999, the survey asks about coverage through Children's Health Insurance Program and also includes the variable "NOTCOV"). For more information on NHIS, please see http://www.cdc.gov/nchs/nhis.htm.

The analysis focuses on people below the age of 65 covered by employer-sponsored insurance (ESI). Some individuals have multiple types of coverage; individuals who are covered by Medicaid or Medicare Part B in addition to an employer plan are not included. Individuals who are covered by Medicare Part A and an employer plan are assumed to have ESI as their primary coverage (less than 1% in 2017). Full-time workers work at least 30 hours a week.

Households at more than four times the FPL earn different incomes depending on a family's composition; for example, in 2017, a single nonelderly adult would earn about $51,000 and a family of four including two children would earn about $99,000.[i]

[i] NHIS uses the Census Bureau's federal poverty thresholds, while HHS and this portion of the brief use federal poverty guidelines to determine eligibility for some public assistance programs.

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Making Choice and Competition Work in Individual Insurance in Health Reform Proposals

January 30, 2019 | Richard G. Frank

ABSTRACT

- **Issue:** Republicans and Democrats agree on prioritizing choice in health insurance, but disagree on what it entails and how to achieve it. Choice and competition can create negative consequences, including adverse selection and consumer confusion.
- **Goals:** Examine the experiences of the Affordable Care Act's marketplaces and recommend ways policymakers can harness choice and competition to improve coverage, satisfaction, and affordability.
- **Methods:** Review of existing evidence.
- **Key Findings:** There are multiple areas where insurance design could promote efficient competition and consumer choice. Experiences with the ACA have shown that health insurance marketplaces should include an urban area with adjacent rural and suburban communities to promote competition among insurers. Other recommendations include allowing smaller insurance carriers to base medical loss ratio rates on past years' data; allowing insurers to bid against each other for contracts to serve a population; providing resources to allow consumers to make informed choices; and including features like essential health benefits to counteract adverse selection.
- **Conclusion:** Markets can deliver efficient premiums, access to care, and consumer satisfaction but only when they are carefully designed and actively managed through regulation.

Background

Even though the partisan divide over health policy will likely persist through the 2020 election, Republicans and Democrats agree on one priority: promoting consumer choice. That said, they disagree on what constitutes choice. On the left, some think it means choice of doctors or hospitals in a Medicare for All model, while some on the right view it as a choice of varying health plans. In the center, policymakers hope that competition and consumer choice at many levels can meet the health insurance and health care needs of American households and, at the same time, result in affordable insurance premiums.

Choice among competing health plans in a marketplace can have potential downsides. For example, if sicker people enroll in insurance while healthier ones opt out — a phenomenon known as adverse selection — insurers' costs go up and they may choose to offer plans with only limited coverage. In addition, choice among plans may fail consumers if they select plans that do not fit their needs because they do not understand their choices. Regulation is needed along with competition — an insight offered long ago by Enthoven and informed by recent experience.[1]

This report recommends ways policymakers on both sides of the aisle could harness competition and choice in the individual health insurance market to improve coverage, satisfaction, and affordability. It first reviews lessons learned from the Affordable Care Act's (ACA) individual marketplace and then applies those lessons to what will likely be the presidential candidates' health plans.[2] For Republicans, this plan may be the Graham–Cassidy–Heller–Johnson amendment: a state block grant, with few rules, that replaces the ACA's coverage expansion. This idea was included in President Trump's fiscal year 2019 budget. For Democrats, the campaign platform is likely to include some type of public plan similar to Medicare. Although Medicare for All is among the proposals under discussion, this report focuses on the models that offer a public plan as a choice alongside private plans. While disparate in their goals, the Republican and Democratic approaches support consumer choice and insurer competition and could both benefit from adopting the measures described in this report.

Creating Choice and Efficiency Through Competition

The individual health marketplaces would continue under the Republicans' block grant proposal as well as the Democrats' public plan choice proposals. In this report, I focus on four areas where meaningful lessons have emerged: geographic definition of markets; regulations that promote or inhibit market entry; the significance of adverse selection; and the impact of product complexity on the effectiveness of consumer choices.

GEOGRAPHIC AND POPULATION SIZE OF MARKETS

In any market, for competition to function well, numerous firms must operate at an efficient scale. In addition, economies of scale suggest that "bigger is better" or suggest a tendency toward "natural monopolies" since larger insurers are typically better positioned to efficiently spread risk. This tends to undermine choice and limit the role of competition. Market design features that spread risk — like reinsurance and risk corridors — serve to reduce the importance of the "bigger is better" feature of health insurance.

The ACA gave states wide discretion in defining the marketplaces where consumers would shop and make their plan selections. Some states combined rural and urban areas into larger aggregates; others chose smaller, more focused markets. The result was considerable heterogeneity across states with regard to the definition of rating areas. This, in turn, creates wide variation in the number of firms competing in a rating area and ultimately the premiums for plans sold on the marketplaces. For example, in Florida rating areas were defined as counties, regardless of the size or density of the population. Texas took a very different approach to defining markets. The major cities in Texas anchored rating areas; those cities were linked to surrounding counties. As a result, 254 counties were divided into 26 rating regions.

Research has found that these choices had a considerable impact. Specifically, states that chose to combine counties into regional markets saw significantly more insurers participating in the marketplaces and significantly lower premiums than in states where markets were simply defined as individual counties.[3] Research showed that if a state altered its market definition by enlarging its markets so that the number of people in a market increased substantially, the result would be an increase of between 27 percent and 37 percent in the number of insurers participating in the market, and premiums that are 3.3 percent to 5.4 percent lower.[4]

For some states there will be regions that will never be able to support more than one or a very few firms operating at an efficient scale. Those regions are characterized by small populations, large geographic areas, and a limited number of providers. Together these features limit the potential for market participation by insurers and interfere with robust premium and quality competition for consumers.

POLICIES THAT AFFECT MARKET ENTRY

Some regulations and policies — like medical loss ratios (MLRs), risk corridors, and reinsurance — have had notable impacts on the financial performance of marketplace insurers and will likely affect long-term insurer participation, consumer choice, and competition.

The MLR, as defined in the ACA, is the amount that insurers spend paying medical claims and on quality improvement activities relative to the premium, net of taxes and regulatory fees. Regulations require that insurers selling plans in the individual market pay out 80 percent of premium in benefits, which includes spending on quality improvement. MLR data are reported for each insurer for each market segment in which they sell plans (e.g., individual, large group) for a calendar year. Existing research suggests that the MLR regulations serve as a check on the exercise of market power and appear not to result in distorted administrative costs.[5] Because smaller insurers tend to have more variable claims experiences, the MLR disadvantages them because they will be more likely to fail to meet the standard than larger issuers for reasons beyond their control.[6] Early experiences with the marketplaces support that proposition. Insurers who did not enter the marketplaces in 2014 and 2015 tended to be smaller and have greater variability in their MLRs in prior years than those that did enter the marketplaces.[7] Data also show that for the average rating area in 2015 and 2016 there were about 18 health insurers that sold health insurance in the geographic area but not in the marketplaces. Smaller insurers were overrepresented in that group. Research shows that smaller insurers were less likely to enter the marketplaces.[8] The implication is that reducing impediments to smaller insurers from entering the marketplaces — such as reducing their risk of not complying with MLR rules — would increase the number of potential entrants.

The temporary reinsurance program in the ACA marketplaces, like other forms of reinsurance, was designed to allow insurers with insufficient resources to cover extreme losses to conduct normal insurance functions. It pays for coverage of very high cost cases (i.e., losses in the "right tail" of the distribution of costs per beneficiary). Reinsurance has a salutary effect on premiums because of this further spreading of risk beyond the individual insurer.[9] Analysis by Jacobs and colleagues showed that reinsurance payments narrowed the claims deficits by nearly half for insurers in the top 10 percent of the claims cost distribution.[10] That analysis also showed that the payments from reinsurance were especially important for the financial status of smaller insurers. The ending of the reinsurance program served to put upward pressure on premiums and disadvantaged smaller insurers because their size makes them less able to efficiently bear the risk of very-high-cost cases. As a consequence, the business case for participating in the marketplaces was weakened, resulting in less choice and less competition.

The risk corridors program also aims to reduce insurers' risk. Its intent was to protect issuers from mispricing premiums in the early years of the marketplaces when experience was limited. While it is permanent for Medicare's prescription drug plans, its continued value in this context has been questioned because numerous large insurers that participate in the Medicare Part D program have learned how to set premiums since the program's beginning in

2006. Risk corridors and reinsurance serve some similar functions. Layton and colleagues demonstrate that the risk protection achieved by a combination of risk corridor and reinsurance that was initially used in the marketplaces can also be accomplished with a simpler reinsurance policy.[11] A key lesson from the ACA is that it is critically important to follow through on regulatory promises, such as payments for the risk corridors. Failure to do so will undercut the risk-reducing features of those programs. In the case of the marketplaces, sufficient funds were not appropriated and the program could not be fully funded. This resulted in plans having to absorb those early pricing errors that in some cases were catastrophic.

ADVERSE SELECTION

The individual market is replete with incentives not to enroll the sickest and mostly costly segments of the population. This is well established in insurance markets with consumers that are heterogeneous with respect to health status, premiums that do not vary with health status, and health insurers that compete for enrollees. Adverse selection has traditionally been addressed through underwriting, preexisting conditions clauses, design of covered benefits, access to specialized provider services, and promotion and location of providers, among other strategies. For example, prior to the enactment of the ACA, 62 percent of enrollees in individual health insurance plans had no maternity coverage, 34 percent had no coverage for substance use disorder care, and 18 percent had no mental health care coverage.[12]

The ACA's insurance reforms aimed to limit this type of adverse selection. It prohibited medical underwriting and annual and lifetime limits on coverage, and instituted minimum essential coverage standards. Its essential health benefit requirements and network adequacy standards also serve to reduce the incentives for insurers to engage in practices aimed at avoiding less healthy enrollees. The ACA's essential health benefits require that 10 services categories, including maternity, substance use disorder, and mental health care, all be covered by all individual and small-group health plans. As a result, there has been an expansion in both coverage and treatment for those conditions.

Risk adjustment has been key to addressing incentives for distorted competition stemming from adverse selection.[13] The marketplaces have a risk-adjustment system that is based on the current health profiles of enrollees rather than being set prospectively. It is based on a less detailed classification of the illnesses than in the system used in Medicare Advantage. This reflects the practical concerns of setting up a new program that serves previously uninsured people and a desire to balance the goal of eliminating incentives to avoid sicker enrollees with the possibility that insurers will have a new incentive to upcode. Insurers have an incentive to upcode because they can realize higher payments from coding cases as more severe.

Existing evidence shows that the risk-adjustment system used for the marketplaces generally worked as envisioned. The system resulted in a redistribution of payments that were consistent with reduced incentives for insurers to engage in actions that promote selection of the healthiest people.[14] The risk-adjustment system shifted payments from insurers with low claims costs to insurers with high claims costs. Insurers with a moderate level of claims saw little changes in their net payments and receipts stemming from the risk adjustment. Research shows that reinsurance also serves as a complement to risk adjustment in weakening incentives to avoid enrollment of high-cost people.[15]

COMPLEX HEALTH INSURANCE CHOICES

The design of the ACA's marketplaces relies on creating competition by including multiple insurers all vying for business.[16] Price-linked subsidies on the marketplaces are based on the price of the second-lowest-cost silver plan.[17] Insurers offering a premium that is the lowest or second-lowest-cost silver plan provide subsidized consumers relatively low out-of-pocket premiums. Thus, there is competition to be the lowest or second-lowest-cost silver plan.

The fewer the number of insurers competing to be the least expensive plan, the less incentive insurers have to lower their premiums. The likelihood that an insurer will have the lowest or second-lowest-cost silver plan declines with the number of insurers competing and thus motivates more aggressive premium-setting as the number of plans rise.[18] Evidence relating the number of insurers selling silver plans to premiums is strong. Multiple researchers have shown that premiums are driven lower as the number of insurers in the marketplaces increases.[19] Analyses by Burke and Sheingold showed that for each additional insurer competing in a marketplace, premiums fell by between 2.8 percent and 4 percent. Estimates by Frank based on the marketplaces from 2014 through 2016 showed that premiums increased by an estimated 7.4 percent when the number of insurers fell below three, all other factors being equal.[20]

One downside of having choices in health insurance is that consumers are prone to making predictable errors when faced with numerous choices regarding complex products.[21] These errors can undermine the benefits gained from competition. Insurance products are complex; benefit design involves copayments, deductibles, coinsurance rates, provider networks, prescription drug formularies, and a variety of specialized programs for specific illnesses. A large body of research has shown that few people buying health insurance have a complete grasp of even the most basic parameters of benefit design such as copays, coinsurance, deductibles, and out-of-pocket maximums.[22] Marketplace design anticipates some of those difficulties. Health insurance products are presented in standardized groupings according to actuarial values — these are known as the metal tiers (bronze, silver, gold, platinum). The marketplaces feature calculators that estimate the expected costs of various health plans for individuals with specific characteristics and allow consumers to determine if their primary care physician is included in a health plan's network. People also can get help from call centers and health plan navigators. These human interventions were associated with higher levels of coverage and enrollment in the marketplaces.[23]

Even with these forms of decision support in place there is evidence of errors in decision-making among marketplace consumers. In 2017, nearly 20 percent of consumers that returned to the marketplaces could have found a lower-cost option within the same metal tier. Marzilli Ericson and Starc[24] showed that more standardization in the Massachusetts marketplace made a significant difference in the choices people made. Finally, studies have shown that as the number of health insurance choices increases, there is greater consumer "inertia" and less response to prices that results in reduced competition.[25] Thus, choice can be a mixed blessing and needs to be carefully titrated to obtain the right balance of competition and clear-eyed consumerism.

Policy Recommendations

What are the implications of these lessons for the individual health insurance market? Reform proposals have ranged from efforts to improve the existing marketplaces by adding a public option (e.g., **"Medicare for More" proposals**) to replacing the marketplaces with far less regulated state-based individual insurance markets (e.g., the Graham–Cassidy–Heller–Johnson amendment). In considering policy design, I appeal to three guiding principles: whenever possible, set conditions that will yield robust competition for consumers; protect against adverse selection; and offer consumers salient information and support in making choices. Using these principles and the key findings from this report, I offer five suggestions on the design of individual health insurance markets:

SETTING MARKET SIZE TO PROMOTE ENTRY

Health insurance markets need sufficient population to support multiple issuers (preferably more than three) at scale if competition for consumers is to work. The evidence from the experiences of the marketplaces is strong on this account. The government entity overseeing the design of markets must structure them to maximize the likelihood that they will be able to sustain multiple insurers. In addition, using a uniform approach based on political divisions like counties is likely to frequently fall short of achieving the goal of promoting competition. The experiences of the ACA marketplaces highlight the fact that state decisions about market definitions have often been incorrect and

have failed to promote competition. Therefore, the federal government should not be agnostic on the minimum size of local market designs. Marketplaces should encompass an urban area with adjacent rural and suburban communities to promote multiple entrants. However, planners must be cognizant of the fact that markets with larger land areas serve to dampen entry — this happens in many rural areas.[26] These considerations can be included in Democrats' proposals for a public plan option. They also could serve as criteria in the Graham–Cassidy–Heller–Johnson proposal for a state to receive a block grant. That is, federal requirements to qualify for a block grant would include defining markets, to promote competition among insurers at efficient scale.

REGULATORY FLEXIBILITY TO PROMOTE MARKET PARTICIPATION

Some existing regulations — including the MLR rules — aimed at consumer protection discourage smaller health plans from entering individual markets. This barrier to entry could be addressed by recognizing that smaller carriers experience greater claims variability and allowing them to calculate their MLRs based on the claims experience aggregated over several years. While this policy change alone would be unlikely to dramatically affect market entry, it would serve as a useful complement to reintroducing reinsurance into the individual health insurance market. Evidence suggests that the temporary reinsurance program in the ACA disproportionately benefited smaller plans and put downward pressure on premiums overall. The Graham–Cassidy–Heller–Johnson proposal contains some reinsurance provisions but these could be strengthened. Proposals aimed at adding a public option to the marketplaces must include a robust reinsurance program to properly balance risk-bearing between the public and private plans in addition to encouraging marketplace participation by smaller health insurers. Since the public option is backed by government, it has built-in protection — effectively a form of reinsurance. This means than small insurers also would need reinsurance in order to compete with the public plan.

COMPETITION FOR CONTRACTS AS A FALLBACK PLAN FOR LOW-COMPETITION AREAS

Evidence indicates that for a number of markets across the country, economic circumstances will never generate sufficient numbers of issuers to create robust competition. In those circumstances, I propose that competition be reoriented. Instead of individual insurers competing to enroll consumers into their health plans, the competition would be among insurers to obtain a contract to serve a population. This would allow for competition among multiple insurers even when the markets are relatively small; insurers would be offering bids to obtain a franchise or partial franchise. There are many examples of successful uses of competition for contracts in health insurance. Employer-sponsored insurance commonly uses such approaches, such as requesting proposals and bids to serve their employees and dependents. State government health insurance plans have used competition for contracts to select pharmacy benefit managers to serve state employees, even those enrolled in different health plans. Similarly, state and local governments (in Massachusetts, Colorado, Arizona, Iowa, and others) have used competition for contracts to select managed behavioral health care organizations to serve their state Medicaid programs. These purchasing arrangements have resulted in multiple bids and strong price competition for markets that might otherwise not have generated robust competition for consumers. This approach might well serve as an alternative to a public plan or as a feature of the Graham–Cassidy–Heller–Johnson proposal.

A variation on this theme would be to make use of a public plan option only in places that do not generate sufficient market participation to support meaningful competition for consumers. Establishing a public option triggered by a specified level of market concentration is one way to address markets that fail to support competition. For example, if a market had a Hirschman-Herfindahl index (HHI) value of 3000 (i.e., a high level of market concentration) or more for three consecutive years, it would trigger the establishment of a public plan for a period of five years, at which point the competitive conditions would be reassessed. (The HHI, a standard measure of market concentration, is the sum of the squares of the market share of the firms. An HHI of 2500 means that the market has four equal-sized firms, each with a 25% share.)

CONSUMER DECISION SUPPORTS

Research shows that for consumers to be effective shoppers, they need to be able to easily sort through health insurance options. Benefit standardization has been shown to help on this front. It also helps to mitigate harmful competition stemming from adverse selection incentives. Providing consumers with clear, accessible information on product characteristics they value is important. Some evidence shows that provision of information by letter and email increased shopping but had little effect on plan-switching behavior.[27] Other evidence highlights the impact that human assistance has in getting people to enroll in marketplace plans. Reducing the number of health plan features under consideration and targeting those most important to consumers can serve to reduce choice overload and make consumers more responsive to key plan differences, thereby focusing competition on parameters that matter most to consumers. The evidence also suggests that making help easily accessible from human assisters via telephone or in person would promote more effective shopping. For the public option proposals, this would mean making the information on all plans equally available to consumers. For the Graham–Cassidy–Heller–Johnson proposal, states should be required to provide such information and consumer supports to qualify for a block grant.

COUNTERING SELECTION INCENTIVES

Finally, all proposals must address selection incentives. For proposals that build on the ACA, such measures could be enhanced. Essential health benefits and risk adjustments are the two most powerful mechanisms for addressing the inefficiencies that result from adverse selection. Evidence from a range of insurance markets implies that if competition is to focus on price and not on selection of healthy enrollees, essential health benefits provisions, standardized benefits, and risk adjustment must be part of market design. For the Graham–Cassidy–Heller–Johnson proposal, this means that those provisions must be key criteria for receipt of a block grant. For the public option proposals, the public plan must provide the same benefits (i.e., essential health benefits, metal tiers) and be subject to risk adjustment in the same fashion as private plans, otherwise competition would lead to adverse selection. Modern risk-adjustment systems have accomplished a great deal in limiting selection. This has been studied extensively within the Medicare Advantage programs. There is, however, a tension between the benefits of reducing adverse selection and the potential costs of upcoding. More detailed illness classifications in risk-adjustment programs make it easier for insurers to upcode. The evidence suggests that it is critically important to use designs for individual health insurance markets that allow for both essential health benefits and risk adjustment to be incorporated. Without such mechanisms an efficiently functioning market is unlikely.

Discussion

Promoting competition that results in efficient health insurance markets cuts against the grain of some strong beliefs on both sides of the American political divide. Republican members of Congress shy away from regulations that serve to standardize products and affect the premiums paid to insurers. Democrats, in contrast, are frequently mistrustful of the profit motive in health care and suspect that there is little ability to rein in the tendency of insurers to compete for good risks and shun people with preexisting conditions. Lessons from Medicare Advantage and the marketplaces suggest that health insurance markets can deliver efficient premiums, access to care, and consumer satisfaction, but only when markets are carefully designed and actively managed through regulation.

Successful markets require more regulation than many Republicans would prefer; on the other hand, Democrats should recognize that markets can work efficiently, albeit with the government playing an active role. Designing health insurance markets requires a regulatory platform that equips consumers and sellers with information, supports risk protection, and offers incentives for efficient choice and supply. Regulations must be flexible and subject to modification as conditions in individual markets change. Realizing the promise of markets for health insurance will require greater unity of purpose from our political leadership and administrative agencies.

ACKNOWLEDGMENTS

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NOTES

1. Alain C. Enthoven, *Health Plan: The Only Practical Solution to the Soaring Cost of Medical Care* (Addison-Wesley, 1980).

2. Jeanne M. Lambrew, *Getting Ready for Health Reform 2020: What Past Presidential Campaigns Can Teach Us* (Commonwealth Fund, June 2018).

3. Some ACA research suggests that insurers pick and choose service areas within rating areas — requiring full coverage of a rating area might be beneficial.

4. Michael J. Dickstein et al., "**The Impact of Market Size and Composition on Health Insurance Premiums: Evidence from the First Year of the Affordable Care Act**," *American Economic Review* 105, no. 5 (May 2015): 120–25.

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Testimony of Karen Pollitz, Senior Fellow

Kaiser Family Foundation

to the

Committee on Ways and Means

U.S. House of Representatives

on

Pre-existing Conditions and Health Insurance

January 29, 2019

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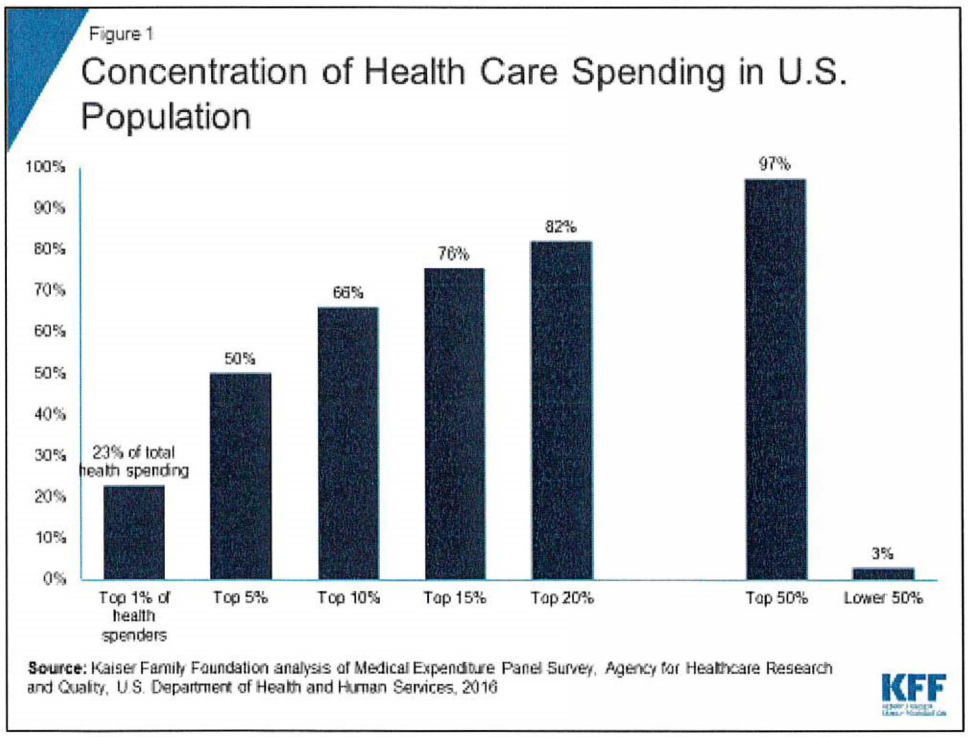
Good morning, Chairman Neal, Ranking Member Brady, and Members of the Committee.

Thank you for inviting me to testify about health insurance for people with pre-existing conditions. I am Karen Pollitz, a Senior Fellow at the Kaiser Family Foundation. We are a non-profit organization, serving as a non-partisan source of health policy analysis and journalism for policymakers, the media, the health policy community and the public. We not associated with Kaiser Permanente or Kaiser Industries.

Pre-existing Conditions and Health Insurance

In the most basic sense, a pre-existing condition is a health condition that a person has. Most people are healthy most of the time, but when a serious condition strikes, health care can be costly. In any given year, the sickest 1% of people account for nearly one-quarter of total population health spending, while the healthiest 50% account for just 3% of health spending. (Figure 1)



Kaiser Family Foundation has estimated that 52 million non-elderly adults (27%) have so-called "declinable" pre-existing conditions in a year.[1] These conditions – such as cancer, HIV/AIDS, diabetes, and pregnancy – are among the most costly conditions and those on which private insurers in the non-group market in most states routinely based decisions to deny applications for health insurance prior to the ACA. Using a broader definition – that includes less costly conditions such as high blood pressure, high cholesterol, and asthma – the US Department of Health and Human Services estimated 133 million non-elderly Americans have pre-existing conditions in any given year.[2]

Very few people could self-finance care for expensive conditions such as cancer, heart disease, or even a routine pregnancy. Instead, most non-elderly Americans rely on private health insurance to collectively finance care.

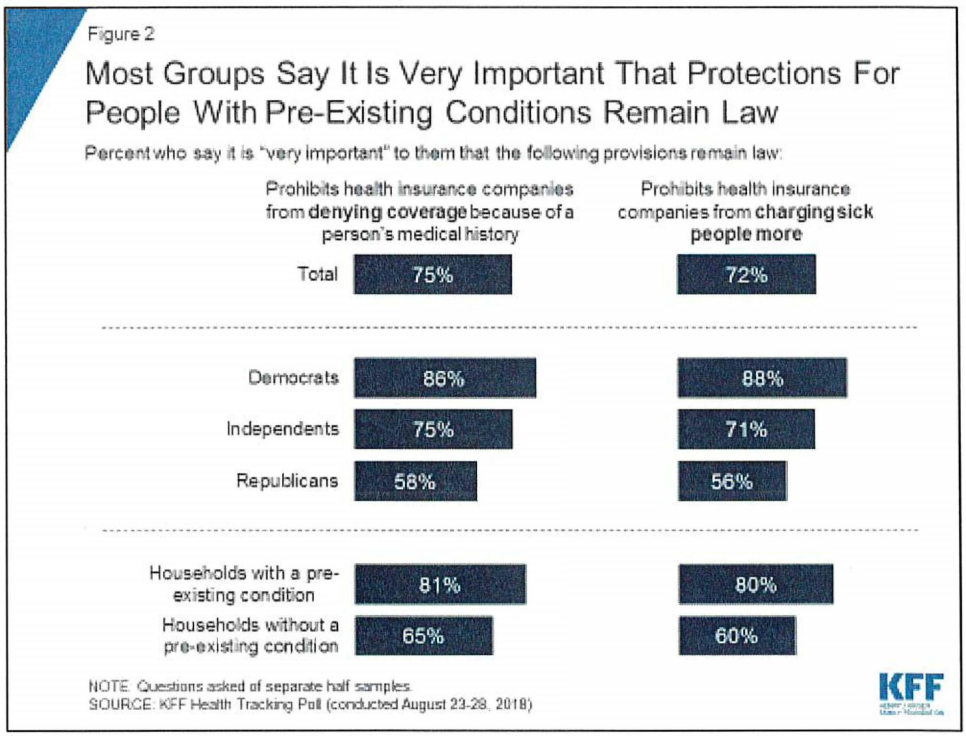
A number of provisions were included in the Affordable Care Act (ACA) to ensure that private coverage will be available and affordable, including to people when they have pre-existing conditions.

Prohibition of Medical Underwriting in the ACA

Before the ACA, insurer medical underwriting practices created barriers to getting and keeping coverage for people with pre-existing conditions, especially in the non-group insurance market. A KFF survey of private insurers prior to the ACA found that even people with mild health conditions such as hay fever could have their application denied, or their premiums surcharged, or they could be offered a policy that permanently excluded coverage for their health condition or the affected body part or system (e.g., in the case of hay fever, respiratory system.)[3] By contrast, under federal law today,

- Group and individual health insurance policies must be sold on a guaranteed issue basis and must be guaranteed renewable. People cannot be turned down or have coverage cancelled based on health status.
- No private group plans or individual health insurance policies can impose pre-existing condition exclusion periods.
- Premiums for policies sold in the individual and small group market use modified community rating. Policy premiums can vary based only on four factors: family size, geography, age (up to 3:1 ratio) and tobacco use (up to 1.5:1). Premiums cannot vary based on a consumer's health status or other factors. Insurers also must set rates based on a single risk pool.[4]

Our tracking polls find strong, bipartisan support for these provisions. (Figure 2)

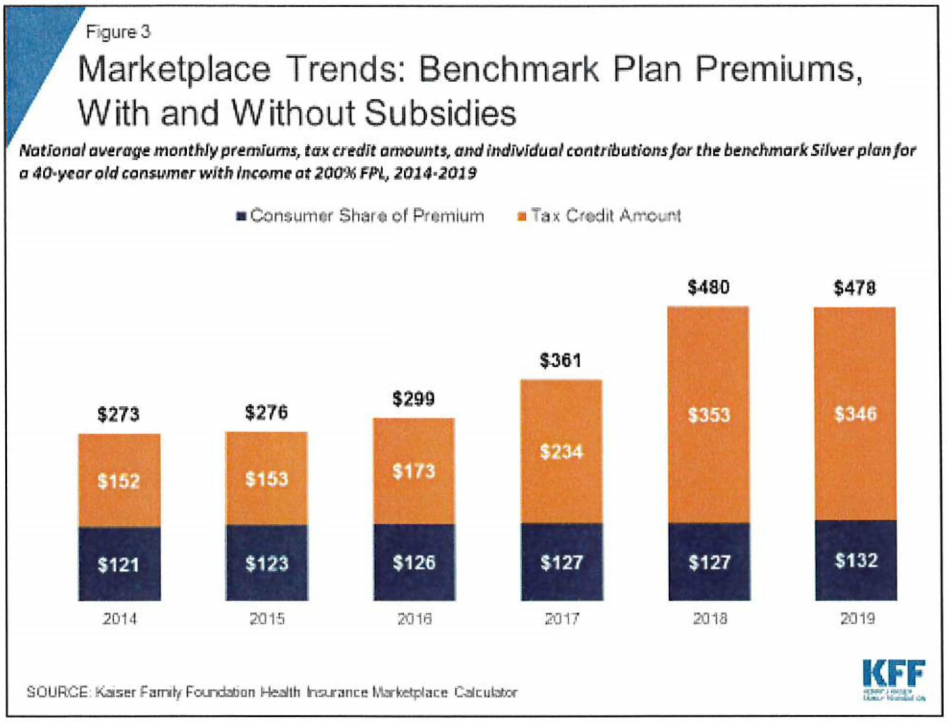


Providing more accessible and comprehensive coverage to people with pre-existing conditions costs money, and the result has been higher average premiums in the non-group market, compared to premiums for non-group plans prior to the ACA.

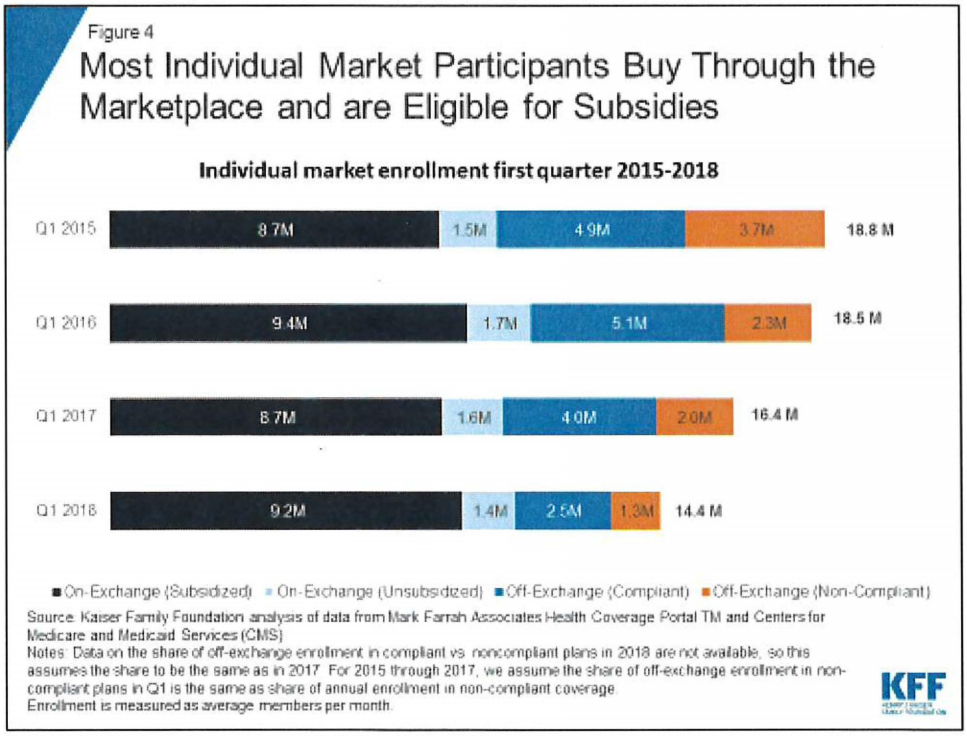
Other ACA provisions Help Stabilize the Insurance Risk Pool

In addition to the ACA market rules, other key provisions under the law also serve to encourage people to participate in coverage and to curb adverse selection.

Premium subsidies – As of June 2018, 9.2 million, or 87% of individuals enrolled in non-group policies in the marketplace received premium tax credits to make the monthly cost of coverage more affordable. Subsidies are key to stabilizing the risk pool. That is because consumers will tend to compare the cost of coverage to their expected health care costs as they make their enrollment decisions. Subsidies generally allow more people to buy health insurance, and they lower this ratio of premium costs to expected health costs for healthier individuals. Year to year, premium subsidies also shield eligible consumers from premium increases. Since the marketplaces opened, the national average premium for the benchmark silver plan has increased by about 75%, though premium tax credits absorbed this increase for subsidy-eligible individuals. (Figure 3)



This, in turn, has helped stabilize enrollment in the marketplace. The number of subsidized marketplace enrollees has held relatively steady, even while premiums have increased. However, consumers not receiving subsidies have felt the full brunt of these premium increases, and enrollment in this group has dropped significantly. (Figure 4)



Minimum coverage standards - ACA-compliant policies in the individual and small group market must cover 10 categories of essential health benefits (EHB), such as hospitalization, physician care, maternity care, mental health and substance abuse treatment, and prescription drugs. In addition, the ACA limits annual cost sharing (copays, deductibles, etc.) for essential health benefits provided in-network. These coverage standards had an important definitional effect – essentially they defined ACA-compliant policies as providing major medical coverage. Prior to the ACA, federal law had defined health insurance as any policy sold by health insurance companies, with some exceptions. Policies in the non-group market before 2014 routinely excluded or limited coverage for maternity care, mental health and substance abuse care, and prescription drugs.[5] Since the ACA, people with serious health conditions can buy non-group policies that cover the care they need, though premiums are also higher as a result.

Also, importantly, the ACA coverage standards limit adverse selection based on benefit design. Without this standard, consumers might self-select into plans offering coverage for only the services they expect to use (e.g., only people planning to have a baby would select policies covering maternity care; only people with HIV or high medication needs would select policies covering prescription drugs), resulting in sicker people paying higher premiums than healthier people.

Individual mandate – The ACA required most Americans to have health coverage or pay a tax penalty. Congress repealed the tax penalty effective for January 1, 2019. Although the individual mandate was never a leading reason why people sought health insurance, it did create a reinforcing incentive for healthy individuals to be covered.[6] As discussed below, with repeal of the mandate penalty, at least some healthy individuals are more likely to forego coverage, causing upward pressure on premiums.

Relaxing ACA Requirements Involves Tradeoffs

A significant number of people who buy ACA-compliant non-group health insurance – 3.9 million last year – do not receive subsidies. For them, rising premiums present serious affordability concerns. Two recent actions present these and other consumers with new options, but also have the demonstrated effect of increasing premiums for ACA-compliant plans.

Reducing the individual mandate tax penalty to zero - As part of the 2017 tax reform legislation, and following months of debate over repeal and replacement of the ACA, Congress reduced the individual mandate penalty to $0 effective in 2019. It is likely this year that at least some individuals will forego health insurance as a result. Those most likely to do so would be individuals who struggle to pay health insurance premiums, particularly those who are not eligible for subsidies, and those who are younger and in good health, for whom doing without coverage feels less risky.

Promoting availability of short-term health insurance – Last year, the Trump administration issued regulations to allow more loosely regulated plans – short-term limited duration insurance (STLDI) – to expand and compete with ACA-compliant non-group coverage.[7] These more loosely regulated plans offer lower premiums for some people who are not eligible for premium tax credits.

With respect to STLDI, prior regulations governing these policies had required that they could provide only short-term coverage, defined as a term of less than 3 months. The new regulations re-define short-term policies as providing coverage for a term of less than 365 days, and, with renewals – at the option of the insurer – up to 36 months. This change could make short-term policies appear to consumers to be a more comparable alternative to ACA-compliant non-group policies, even though the protection STLDI policies offer is not the same.

ACA market rules for other individual health insurance policies do not apply to STLDI, and as a result, short-term policies raise multiple barriers to coverage for people with health conditions. First, issuers of short-term policies can and will deny applicants with pre-existing conditions. Second, STLDI policies typically exclude or severely limit coverage for some ACA essential health benefits, including prescription drugs, maternity care, and mental health and substance use treatment.[8] Third, STLDI policies exclude coverage of all benefits related to pre-existing conditions. Healthy applicants who develop health conditions once covered risk having claims denied if the insurer can establish the condition existed (even undiagnosed) prior to enrollment. Finally, because STLDI policies are not guaranteed renewable, policyholders who get sick will likely find coverage terminates without the option to renew at the end of the policy term.

These differences mean short-term policies can be offered at much lower premiums. We estimate that, on average, STLDI policy premiums are 54% lower than premiums for ACA-compliant plans.[9] Importantly, this lower cost option is not available to people with pre-existing conditions. They can continue to rely on ACA-compliant plans, but will have to pay even higher premiums if they are not subsidy-eligible due to a worsening of the risk pool as a result of STLDI plans pulling healthier than average people out of the ACA-compliant market.

By law, STLDI policies are not considered "minimum essential coverage," which is required to satisfy the ACA individual mandate. While the individual mandate penalty remained in effect, consumers considering short-term plans because of their lower premiums had to take into account the offsetting cost of the tax penalty. With the mandate tax penalty eliminated and under the new STLDI regulations, it is likely more people will buy short-term policies instead of ACA-compliant policies; and insurers have factored this change into their rates for ACA-compliant plans. Analysis by KFF of rate filings by non-group

market health insurers finds that 2019 premiums are, on average, 6% higher than they would otherwise be due to changes in the mandate penalty and expected expansion of short-term policies.[10]

Future Actions Could Affect Coverage for Pre-existing Conditions

Recent Trump Administration guidance on ACA Section 1332 waivers raises the possibility that states could take further steps to promote the sale short-term health insurance policies and even shift federal subsidy dollars from marketplace policies into these less-regulated plans.[11] Under Section 1332, states can apply for waivers of certain ACA requirements in order to pursue other coverage strategies. Federal law includes so-called guardrails requiring that state waivers cover at least as many people at least as affordably and comprehensively as would be the case in the absence of a waiver.

The 2018 Administration guidance changes administrative standards for measuring compliance with 1332 guardrails and gives CMS broader discretion to determine whether a state waiver meets the law's requirements. In particular, the new guidance encourages greater reliance on short-term policies as a source of coverage. It makes clear that people enrolled in such plans would still be counted as "covered" in evaluating whether the waiver program results in at least as many residents having coverage. In addition, under the new waiver guidance, states could shift at least some federal subsidy resources out of the ACA marketplace to instead provide subsidies for the purchase of ACA non-compliant plans. Reducing marketplace subsidies would make the cost of ACA-compliant plans less affordable for people who rely on them. This could prompt more people to drop marketplace coverage, increasing instability in the market.

The new waiver guidance offers states a pathway to pursue changes under the ACA similar to those that Congress debated, but could not enact, during the ACA repeal-and-replace debate in 2017. How states might respond to the new waiver guidance, and how the Trump Administration might act on any new state waiver applications remains to be seen.

Summary

In summary, the ACA substantially changed private health insurance so it would cover people with pre-existing conditions. Insurance that covers sick people and the care they need will cost more than coverage that does not. Subsidies make the cost of ACA-compliant plans more affordable, but not all consumers are eligible and, for them, affordability concerns are rising.

Relaxing ACA protections for pre-existing conditions can make cheaper coverage available to some, though at other costs. Coverage that is less expensive for people only while they are young and healthy, puts the same people at risk once they get sick. Strategies based on dividing the risk pool drive up the cost of plans that do cover people with pre-existing conditions. Our polling suggests that most Americans want health insurance to work for people when they get sick.

End Notes

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[1] Kaiser Family Foundation, "Pre-existing Conditions and Medical Underwriting in the Individual Insurance Market Prior to the ACA," December 2016.

[2] US Department of Health and Human Services, "Health Insurance Coverage for Americans with Pre-Existing Conditions: The Impact of the Affordable Care Ac,t" January 5, 2017.

[3] Kaiser Family Foundation, "How Accessible is Individual Health Insurance for Consumers in Less-Than-Perfect Health?" June 2001.

[4] The ACA requires insurers to determine premiums for compliant policies using a single risk pool that includes all such plans, both inside and outside of the marketplace, offered within a state. As a result, premiums for all compliant policies reflect the average expected costs of everyone in the single risk pool; this requirement spreads the cost of the most expensive individuals across the entire risk pool.

[5] Kaiser Family Foundation, "Would States Eliminate Key Benefits if AHCA Waivers are Enacted?" June 2017.

[6] Kaiser Family Foundation, "Poll: Survey of the Non-Group Market Finds Most Say the Individual Mandate Was Not a Major Reason They Got Coverage in 2018, And Most Plan to Continue Buying Insurance Despite Recent Repeal of the Mandate Penalty," April 2018.

[7] In 2018, the Administration also published regulations permitting the sale of new association health plans (AHPs), which could be offered to self-employed individuals who otherwise buy coverage in the non-group market. AHPs would not be allowed to deny applicants or charge more based on health status, and would not be allowed to impose pre-existing condition exclusion periods. AHPs would be exempted from the requirement to cover 10 essential health benefits however. To the extent consumers could choose, based on their health status, between plans offering materially different benefits, adverse selection could result, and this could drive up premiums for ACA-compliant policies in the non-group market.

[8] Kaiser Family Foundation, "Understanding Short-Term Limited Duration Health Insurance," April 2018.

[9] Kaiser Family Foundation, "Why Do Short-Term Health Insurance Plans Have Lower Premiums Than Plans That Comply with the ACA?" October 2018.

[10] Kaiser Family Foundation, "How Repeal of the Individual Mandate and Expansion of Loosely Regulated Plans are Affecting 2019 Premiums," October 2018.

[11] Kaiser Family Foundation, " New Rules for Section 1332 Waivers: Changes and Implications," December 2018.

INITIATIVE

18|11

What Can We Do About the Cost of Health Care?

SOCIETY OF ACTUARIES®

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INITIATIVE 18|11

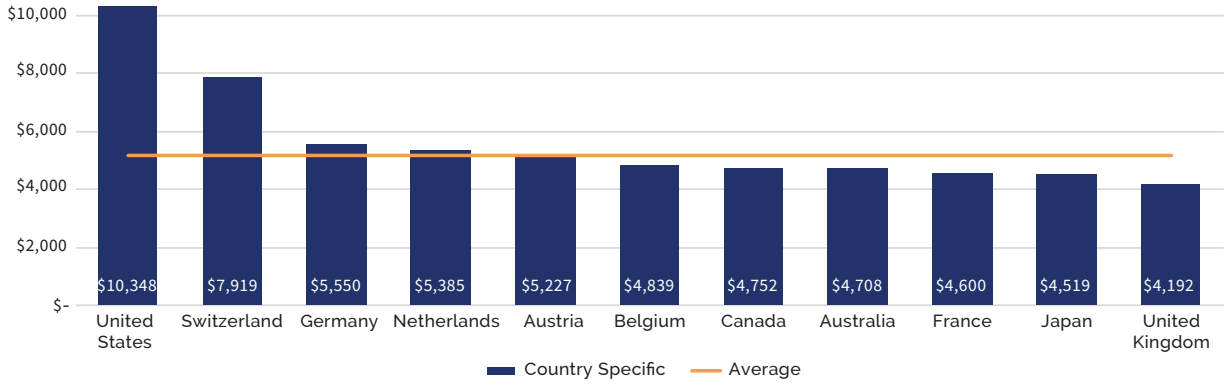
Contents

Section 1. Executive Summary

The 2010 enactment of the Affordable Care Act (ACA) changed careers for those in the health care community. There were new regulations to be read, new policies to be written, new pricing methods to be developed and so much more.

Amid this activity, however, there was, and still is, an elephant in the room: the cost of healthcare. Currently, health care in the United States represents 18 percent of the gross domestic product compared with 11 percent in comparable countries, such as the United Kingdom. In dollar terms, the cost of health care here is roughly double that of similar countries (see Figure 1). While the U.S. pays more for health care, it falls short on many important quality measures, such as life expectancy, which is 78.8 years in the U.S. compared with 82.0 years in comparable countries.[1] In addition, a 2017 Commonwealth Fund study ranked the United States last in overall quality of care compared with 10 similar countries.[2]

Figure 1
2016 Per Capita Expenditures



Source: Sawyer, Bradley, and Cynthia Cox, How does health spending in the U.S. compare to other countries? Health System Tracker, Feb. 23, 2018, *https://www.healthsystemtracker.org/chart-collection/health-spending-u-s-compare-countries/?_sf_s=compare#item-average-wealthy-countries-spend-half-much-per-person-health-u-s-spends.* Accessed Aug. 2, 2018.

With this issue in mind, the Society of Actuaries (SOA) joined forces last year with the Kaiser Family Foundation (KFF) to charter Initiative 18|11: What Can We Do About the Cost of Health Care? The SOA is the world's largest provider of actuarial research and education. KFF is a non-partisan source of analysis of current health policy issues, with a long-standing interest in how health spending growth affects government, employers and consumers. The Healthcare Financial Management Association (HFMA) has joined our efforts. HFMA provides reliable tools, credible resources and unique insights into health care finance. The phrase "18|11" is a reference to the relative percentages of GDP discussed above.

The inaugural event for Initiative 18|11 occurred on March 7, 2018, in Washington, D.C., at an all-day event moderated by Ian Morrison, an internationally known author, consultant and futurist. Morrison specializes in long-term forecasting and planning, with an emphasis on health care and the changing business environment. The meeting attendees included more than 30 thought leaders throughout the health care community, including actuaries, health economists, employee benefits experts and hospital administrators. A complete list of participants can be found at the end of this report.

At the conference, we focused on two key drivers: the price of goods and services and the chronic disease burden. In our discussions, we noted that fragmentation of care within the U.S. can result in unnecessary administrative expenses and make finding solutions more difficult. Once we had established that, we asked ourselves what can we as a nation do about it? What can the health care community do about it? Over the next few years, we can expect an evolution in health care through new care transformation models, which we referred to as Managed Care 3.0. At this point, the term "care transformation model" is loosely defined, but there is general agreement that it includes new technologies and analytical techniques, further development in value-based reimbursement and plan design methods, and innovations in care management. In addition, there are some process improvements that may help reduce administrative costs and increase quality. Some of these efforts will be led by private organizations, like health plans, and other will be focused on state and local solutions.

In the next few months, the planning committee will focus on three main deliverables:

- **A research project** analyzing the 5 percent of the population that accounts for 50 percent of the health care costs, with an emphasis on understanding the population, increasing early interventions and reducing overall costs
- **A strategic initiative** documenting the pharmacy development and pricing process, with the goal of improving transparency

- **A strategic initiative** examining the impact new technologies and care models may have on cost and quality, with the goal of better understanding the current environment and identifying potential risks and opportunities

Although these projects will be sponsored by the SOA, the project committees will include representatives from our partners, KFF and HFMA, and participants from the inaugural event.

The latest information on Initiative 18|11 can be found on our website *www.soa.org/initiative1811*.

Section 2. Cost Drivers

During the meeting, much of the conversation centered on identifying the key drivers of health care in the United States. Although there are many ways to analyze the cost of health care, we chose to narrow our focus on two views:

- **A transactional view t**hat reflects the day-to-day perspective of health care for providers, payers and consumers
- **A holistic view** of health care costs based on the needs of consumers and populations

A central theme during the discussion was the concept of the "health care identity," which refers to the notion that health care costs = health care income. In other words, any attempt to reduce costs will result in lower income for someone in the health care community. Providers and administrators can be expected to develop countermeasures to keep income constant or increasing. As one participant put it, "Cost savings means fewer employed physicians." Since the traditional laws of supply and demand do not necessarily hold in health care, we quickly concluded we cannot control costs without some type of forcing function that provides oversight to the process. Examples of forcing functions used in other countries include global budgets and price regulation. It is unlikely the U.S. will adopt these types of methods on a national basis in the near future. We noted, but did not discuss in depth, some of the challenges faced by other countries, such as long waiting times.

THE TRANSACTIONAL VIEW

We intentionally kept our conversation focused, so we did not discuss in-depth many subjects that would otherwise be included in this type of discussion, such as quality of care, fraud and abuse, and the role of government regulation. These topics were mentioned tangentially during the conversation and were covered in the data book,[3] which participants were given in advance of the meeting to ensure a data-driven discussion without getting too involved in the details at the meeting.

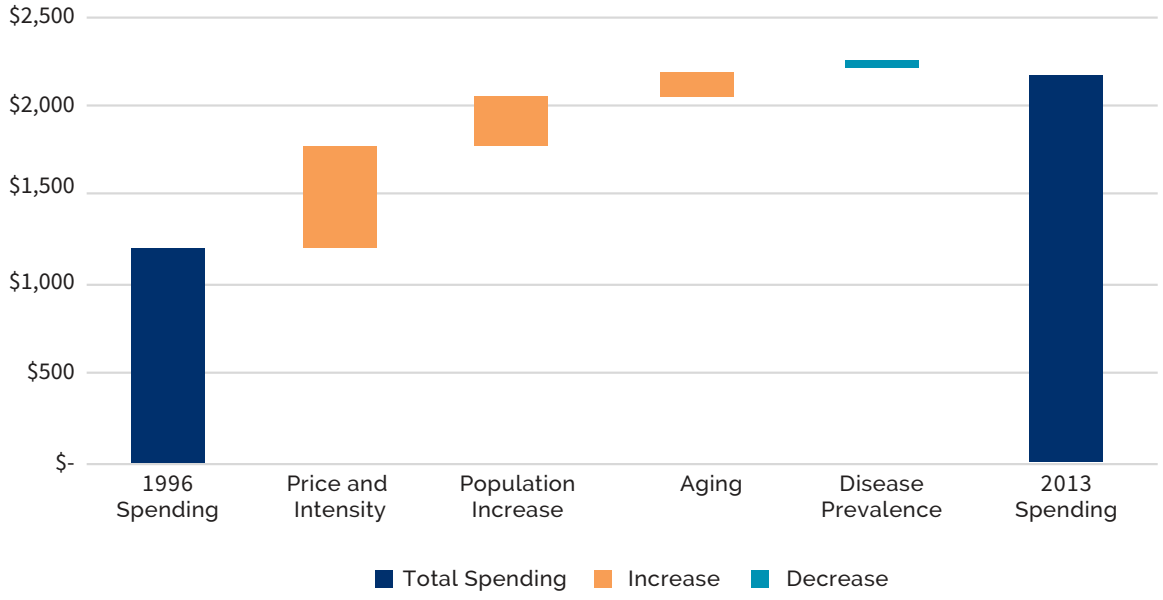
Prices vs. Other Factors

There was a consensus among the participants that one of the primary reasons for the 18|11 problem is the difference in prices. This was well documented in a 2003 *Health Affairs* report.[4] One of

the authors, Gerard Anderson, was an 18|11 participant. The results from more recent studies are consistent with this thesis. For example, a 2018 *Journal of the American Medical Association (JAMA)* study concluded that the major drivers of the increase in health care costs were due to the "prices of labor and goods, including pharmaceuticals, and administrative costs." They also noted that utilization rates in the United States were similar to those in other countries.

As seen in Figure 2, another *JAMA* study showed that approximately 50 percent of the increase in U.S. expenditures from 1996 to 2013 was due to increases in price and intensity. The other two major drivers in the study include an increase in the U.S. population, which accounted for about 23 percent of the increase, and aging, which accounts for about 12 percent of the increase. There was no statistical change in spending due to utilization. Changes in disease prevalence or incidence were a slight cost mitigator in the 2 to 3 percent range. Of course, these results varied by health condition and type of care. During the discussion, many participants noted that prices have been the main driver of costs in their day-to-day work.

Figure 2
U.S. Health Care Cost Drivers



Source: Dieleman, Joseph L., Ellen Squires, and Anthony L. Bui, et al. 2017. Factors associated with increases in U.S. health care spending, 1996–2013, *Journal of the American Medical Association* 318, no. 17:1668–78, *https://jama network.com/journals/jama/fullarticle/2661579*. Accessed Nov. 29, 2018.

Several of our participants, especially those tied to the employer community, expressed extreme frustration with the lack of transparency in the pricing process, which was described as a "cloak of secrecy." Although the talk began with pharmacy pricing, most of the discussion centered on negotiations between health plans and providers. In almost every such agreement, there is a nondisclosure proviso in place, which makes it impossible to compare prices by health plan on a service-by-service basis. Employers, however, can compare overall costs by health plans through a process known as uniform discount submission. There were also some words of caution that greater transparency may lead to higher costs, as it did for executive pay, which increased rapidly over the past few years even though federal law requires disclosure of the compensation for the top five executives.[5]

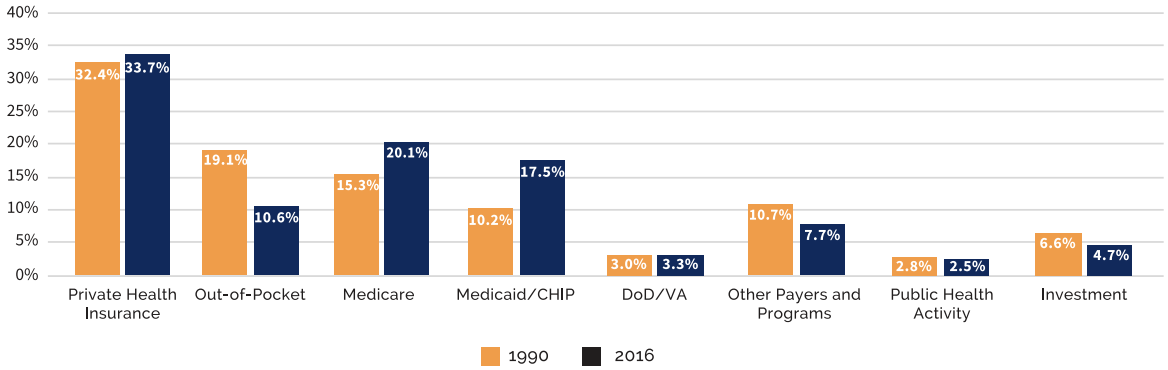
Also, several attendees, especially health plan participants, mentioned that negotiations between health plans and providers is often confounded by the consolidation of providers within a region.

Indirect Expenses

In its simplest form, the total cost of health care has two components: the direct cost of care and the indirect expenses needed to develop systems and administer the program. According to national health expenditures reports, indirect expenses have been around 15 percent of total spending for more than 25 years. Currently, 8 percent of the total is associated with costs related to administering a program, such as billing and claims payments. The remaining costs are associated with other indirect services, such as research, public health and infrastructure. The 15 percent number may be understated, since it does not include provider-related administrative expenses like billing, scheduling, and so on.[6]

In the United States, there are many sources of funds, as shown in Figure 3. Only about 70 percent of total expenditures come from the three main payers: private health insurance, Medicare and Medicaid. The remaining funds come from a myriad of sources, including several government programs. The number of organizations administering programs is far greater than the ones shown. Each state has its own Medicaid rules, and each health plan has its own systems and rules.

Figure 3
Health Expenditures by Source of Funds



Source: Centers for Medicare & Medicaid Services, National health expenditure data: Historical, Last modified Jan. 8, 2018, *https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html.* Table 1. Accessed Nov. 29, 2018.

This fragmentation of care leads to additional costs and duplication of effort. For example, each health plan has employees dedicated to developing, maintaining and administering billing functions. Similarly, providers need sufficient staff to meet health plan requirements, like pre-authorization, which vary from health plan to health plan. Participants also expressed concerns about how antiquated the existing systems are, citing the use of fax machines as an example. Efforts to modernize administrative systems will be hampered by the inability of existing systems to transfer and use data from other sources.

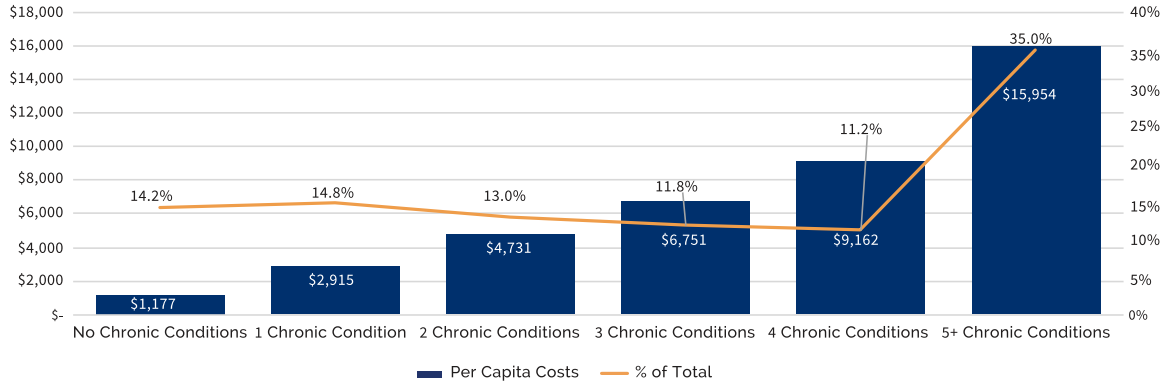
CONSUMERS AND POPULATIONS

At the end of the day, the cost of health care depends on decisions made by consumers with the support of their doctors and third parties, like public health organizations and employer care management programs. Each decision will depend on the person's health status, resource availability and personal preferences. With that in mind, looking at concentrations of health care expenditures by key populations can be useful in finding ways to reduce costs and increase quality.

The Chronic Disease Burden

Remarkably, 86 percent of health care spending is for patients with one or more chronic conditions—conditions expected to last three months or more as shown in Figure 4. Among the chronic population, people with more than one condition account for 71 percent of total spending. The cost of chronic diseases goes far beyond the direct amounts spent on these diseases. In the United States, seven out of every 10 deaths are caused by chronic diseases each year.[7] There are indirect costs through lost productivity and an unmeasurable loss in the quality of life and the loss of ability to perform activities of daily living, such as bathing and eating.[8]

Figure 4
Chronic Disease Costs



Sources: Gerteis, Jessie, David Izrael, Deborah Deitz, Lisa LeRoy, Richard Ricciardi, Therese Miller, and Jayasree Basu, 2014, Multiple Chronic Conditions Chartbook: 2010 medical expenditure panel survey data, Agency for Healthcare Research and Quality, AHRQ Pub. No. 14-0038, *https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/prevention-chronic-care/decision/mcc/mccchartbook.pdf*, and National Center for Health Statistics, 2017, Health, United States, 2016: With chartbook on long-term trends in health, *https://www.cdc.gov/nchs/data/hus/hus16.pdf#053*. Accessed Nov. 29, 2018.

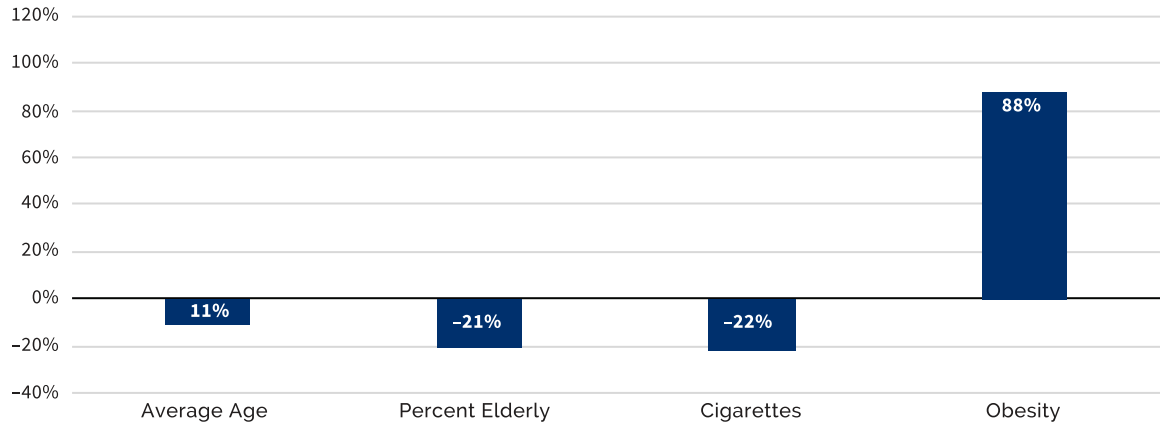
For adults, the most prevalent conditions are uncontrolled hypertension (uncontrolled blood pressure) and hyperlipidemia (high cholesterol and high triglycerides). For children, the most common conditions are allergies and asthma.

During the discussion, several participants with health plan ties indicated that the polychronics were the biggest concern, especially since there is a lack of robust cost-effectiveness measurement techniques for long-term solutions. They acknowledged that traditional longitudinal studies are valuable but indicated they tend to be very expensive and very specific. At least one participant noted that other countries have oversight boards set up to evaluate cost-effectiveness.

Risk Factors

Some risk factors for chronic diseases, like aging and family history, cannot be changed. Two key risk factors, smoking and obesity, can be modified. As Figure 5 shows, smoking rates in the United States are lower than comparable countries, but the obesity rates are much higher.

Figure 5
Key Risk Factors: U.S. as a Percentage of Difference From Comparable Countries



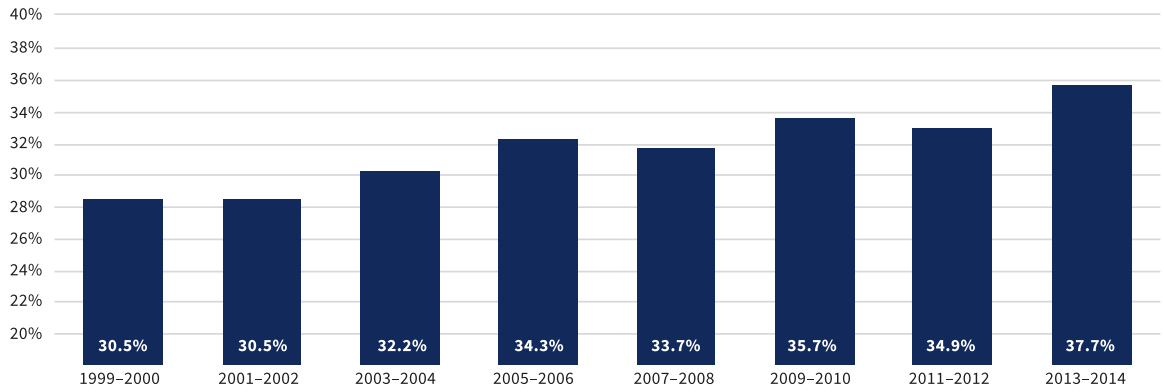
Source: Kamal, Rabah, Cynthia Cox, and Erik Blumenkranz, What do we know about social determinants of health in the U.S. and comparable countries? Health System Tracker, Nov. 21, 2017, *https://www.healthsystemtracker.org/chart-collection/know-social-determinants-health-u-s-comparable-countries/?_sft_category=health-well-being#item-though-u-s-population-aging-younger-average-age-smaller-elderly-population-comparable-countries.* Accessed Feb. 1, 2018.

Adult smoking rates have decreased from 41.9 percent in 1965 to 15.3 percent in 2015, a 63 percent drop.[9] These favorable results are not by accident. The decrease began with the publication of the 1964 Surgeon General's report in documenting the health impact of smoking and continued with several social marketing efforts that led to important regulations that banned advertising cigarettes on television and restricting smoking in public buildings.

Although these results are certainly encouraging, cigarette smoking is still the leading cause of preventable deaths in the United States. In fact, about one in five deaths are attributed to cigarette smoking. The estimated cost attributable to smoking is approaching $300 billion, with direct costs of at least $170 billion and loss of productivity at more than $150 billion.[10]

There have been similar efforts to reduce the obesity rates, including commercially available diet and exercise programs, community outreach programs and clinical solutions, like gastric bypass surgery. In totality, however, these efforts have not been as successful, as shown in Figure 6. Currently, estimates for the cost of obesity range from $147 billion to $210 billion per year.[11]

Figure 6
Adult Obesity Prevalence



Source: Ogden, Cynthia L., Margaret D. Carroll, Cheryl D. Fryar, and Katherine M. Flegal, 2015, Prevalence of obesity among adults and youth: United States, 2011–2014, NCHS Data Brief no. 219, *https://www.cdc.gov/nchs/data/databriefs/db219.pdf.* Accessed Nov. 29, 2018.

Treatment Compliance

In developing a treatment plan, a patient and his or her doctor often focus on how to avoid complications for a disease. Some common strategies for reducing the risk of complications include further reduction in modifiable risk factors through lifestyle changes and, in some cases, prescription medications. Regular office visits and tests are scheduled to make sure the patient stays on track.

In a 2011 *Consumer Reports* survey, one of the leading complaints among primary physicians is that patients do not take the doctor's advice or follow treatment. For example, although 3.8 billion prescriptions are written every year, more than 50 percent of them are not taken or are taken incorrectly. The cost of noncompliance has been estimated at $290 billion. Also, 125,000 deaths each year are attributed to poor medication compliance.[12]

The reasons for noncompliance are complex. In addition to the obvious reason, affordability, some of the reasons cited most often include:[13]

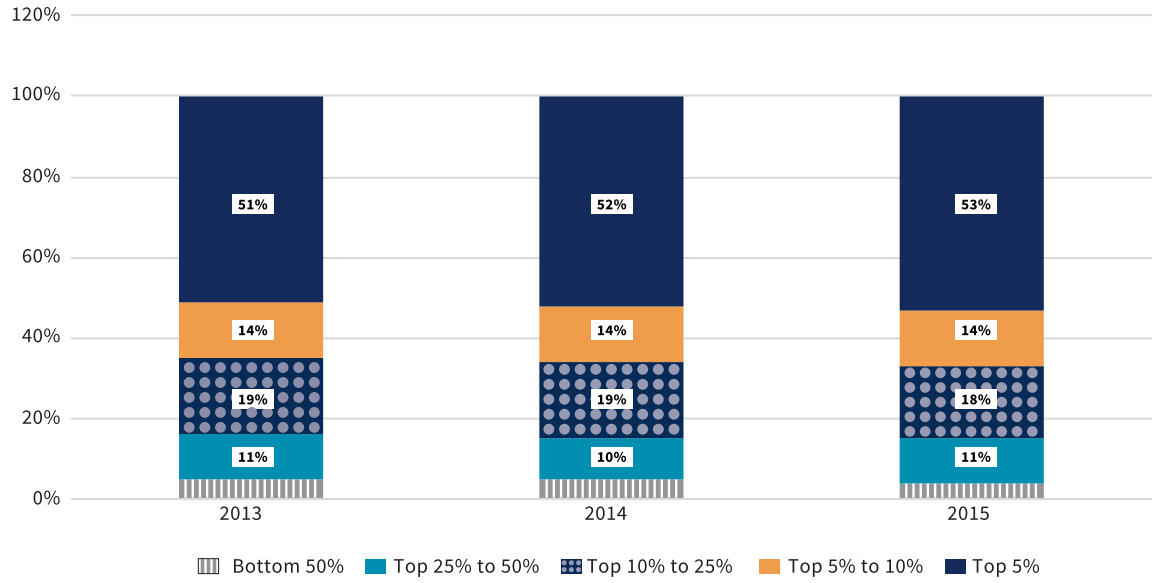
- Forgetfulness
- Perceived side effects
- Depression and other mental health conditions
- Lack of knowledge about the medication and benefits
- Trouble understanding the doctor's advice
- Lack of social support for services, such as housing

Given this level of complexity, it is unlikely there will be a silver bullet to reduce the chronic disease burden. Instead, it is likely there will be multiple solutions geared toward specific consumers and populations. We can expect to see more research in this area going forward.

The 5/50 Population

According to a 2016 Agency for Healthcare Research and Quality (AHRQ) study, more than half of the cost of health care can be attributed to 5 percent of the population.[14] This is certainly the case for the commercial population, as shown in Figure 7. A special case is end-of-life care for Medicare, where the last year of life represents about 25 percent of the total traditional Medicare spending.[15]

Figure 7
Adult Spending Share



Source: Johnson, Bill, and Sally Rodriguez, Top spenders among the commercially insured increased spending concentration and consistent turnover from 2013 to 2015, Health Care Cost Institute, Feb. 1, 2018, *https://www.healthcostinstitute.org/research/publications/hcci-research/entry/top-spenders-among-the-commercially-insured-increased-spending-concentration-and-consistent-turnover-from-2013-to-2015.* Accessed Nov. 29, 2018.

This concentration of costs can be very valuable in developing solutions, but we need to know more about the underlying population first. Does the 5/50 rule apply for all demographic groups? Are there predictors of the 5 percent population? Do the claims for the 5 percent tend to be episodic in nature? For example, solutions for patients in the 5 percent cohort year after year, like the frail elderly, will be different for those who are only in the 5 percent population during a specific episode of care.

The 5 percent population is important not only because it is a major driver of health care costs, but also because it is a major source of variation in health care. This variation impacts payers' ability to predict and budget health care costs. In addition, research results may be skewed because of this variation.

Section 3. What Can We Do About the Cost of Health Care?

After the discussion on cost drivers, the group turned its attention to identifying potential solutions, including current efforts. The Initiative 18|11 leadership team then used that list to determine priorities for the next phase of the initiative.

POTENTIAL SOLUTIONS

Most of our discussion centered around care transformation models, or Managed Care 3.0. This concept is still loosely defined at this point, but we can expect to see considerable evolution in both care models and administrative functions in the next few years as new technologies, data sources and analytical methods emerge. The changes will not be limited to technology alone. We can expect to see increased innovation in techniques to prevent diseases, identify gaps in care earlier and coordinate needed care. Also, many new players are entering the field. In some cases, the players are part of a large organization, like IBM Watson. In other cases, the player is smaller and more focused, like Navvis, AVIA or HMC HealthWorks.

We can expect each effort to claim significant savings. That said, undoubtedly, there will be significant overlap among these activities, which will make it difficult to measure the overall impact on the cost of care and to prioritize activities. New evaluation methods will likely be needed to measure this impact.

State, Local and Health Plan Solutions

Given the complexity associated with the chronic disease burden and the fragmentation of care in the U.S., most participants were convinced the key to reducing costs would be found in solutions developed at the state, local or health plan level. There has always been considerable activity in this area through the work of public health organizations, nongovernmental organizations and health plan wellness programs. Most of these types of efforts have centered on identifying gaps in care and coordinating care, two critical factors in managing the chronic disease burden. Traditionally, these types of efforts have focused only on medical services, but more and more we are seeing an emphasis on mental health services and other social support services, including housing. We are also seeing similar efforts by health plans. For example, some health plans have a "house call" program for Medicare and other at-risk members. Under this program, a nurse practitioner visits the member's home to determine if the member is indeed taking medication as prescribed, has transportation to office visits and so on.

According to the measures of success used in the 2018 Commonwealth Fund scorecard on state health system performance,[16] on balance, health care systems exhibited more improvement than decline between 2013 and 2016. These measures cover access to health care, quality, efficiency, outcomes and disparities. States that have shown improvement tend to form community coalitions to achieve their results. States are still facing challenges in the form of higher death rates, high levels of obesity, the opioid epidemic and gaps in care.

In addition, we are seeing efforts to change how care is delivered. For example, there is a pilot program in Massachusetts that permits paramedics to treat some conditions at home rather than transport the patient to the emergency room.[17] There are similar projects being sponsored by the Center for Medicare & Medicaid Innovation and organizations like the American Hospital Association.

One participant suggested we consider a "global budget for all" concept. This would be like Medicare Advantage for all, but it would be more flexible and give more independence at the state and local levels. The Maryland Health Enterprise Zone Initiative[18] may serve as an early example of this type of approach.

Technology in Direct Patient Care

There has been a tendency to associate the use of technology with overutilization of MRI, CT scans and other costly procedures. The role of technology in health care is changing, however. A few examples:

- The technology associated with computer-assisted imaging continues to evolve in hopes that this will reduce the number of detection errors.
- We are seeing an increase in the use of robotic surgery, which often results in few complications, less pain and blood loss, and a quicker recovery. It remains to be seen if those benefits will offset the use of more costly equipment.
- Similarly, we are seeing a focus on targeted gene therapy for cancer treatment. This therapy uses information about a person's genes and proteins to prevent, diagnose and treat cancer. In theory, this is a less toxic treatment because it is more precise. Although there are considerable benefits to this type of treatment, the cost of determining the exact regimen may more than offset any cost savings. There are considerable side effects to both forms of treatment.

Although all of these technologies show great promise, the role of the physician will continue to be key, especially when it comes to coordinating an overall treatment plan and communicating the results and options to the patient. Physicians will also need to be judicious in the use of technology because devices are not subject to the same regulatory scrutiny that drugs are.[19]

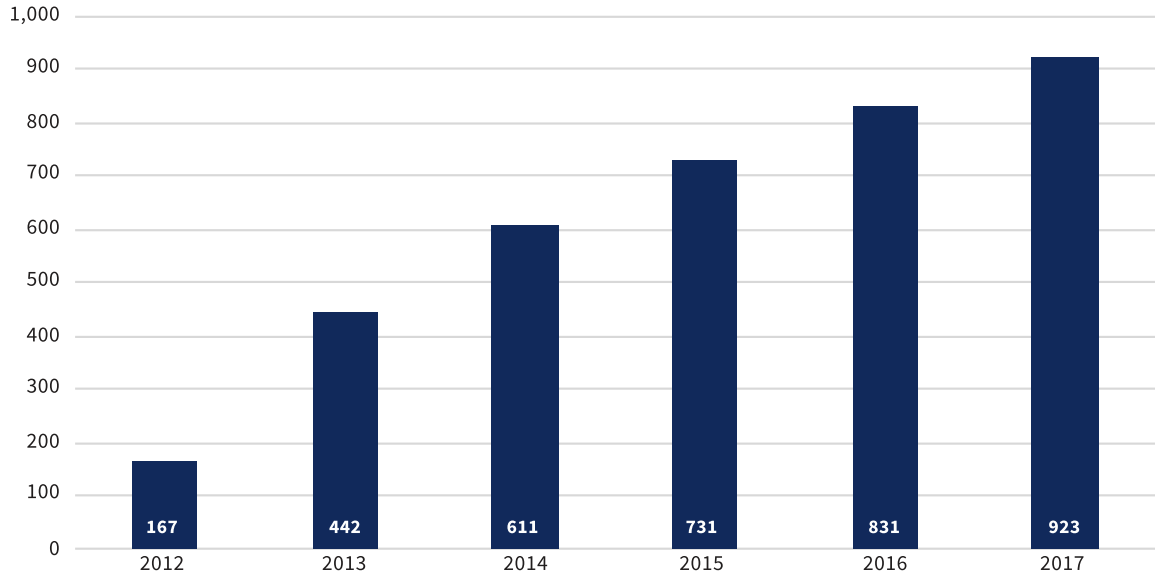
Value-Based Reimbursement Methodologies

Many in the health care community are exploring the possibility that value-based reimbursement (VBR) methodologies will serve as a forcing function like those found in other countries, but without the regulatory bureaucracy.

Under a VBR methodology, the provider is reimbursed not only on the services performed but also receives a bonus or pays a penalty based on compliance with specified quality and efficiency measures. Value-based reimbursement agreements rely heavily on the same techniques described above, like identifying gaps in care and coordination of care. In addition, services are generally performed at the lowest appropriate license level. Specific VBR agreements go by distinct names, including accountable care organizations (ACOs), medical home organizations and shared savings programs.

We are seeing an increase in the number of value-based agreements throughout the industry. For example, the number of CMS-approved ACOs has increased rapidly, as shown in Figure 8.

Figure 8
Number of ACOs



Sources: Muhlestein, David, Robert Saunders, and Mark McClellan, Growth of ACOs and alternative payment models in 2017, *Health Affairs* blog, June 28, 2017, *https://www.healthaffairs.org/do/10.1377/hblog20170628.060719/full/*, and Centers for Medicare & Medicaid Services, CMS welcomes new and renewing Medicare shared savings program ACOs, SSP Fact Sheet, Jan. 18, 2017, *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/2017-MSSP-Fact-Sheet.pdf.* Accessed Nov. 29, 2018.

It is still too early to tell if VBR methodologies will live up to the promise. The overall penetration rate is still low, and most of the current arrangements are upside only (bonuses but no penalties). According to a recent study sponsored by HFMA, few value-based reimbursement models offer significant incentives to manage total cost of care.[20] This study also pointed out that early information shows results are often dependent on market circumstances, including competition between health systems and health plans.

One participant noted a drawback of current VBR agreements is that they are limited to a one-year time horizon. There is no construct that measures or rewards providers for longer-term improvements.

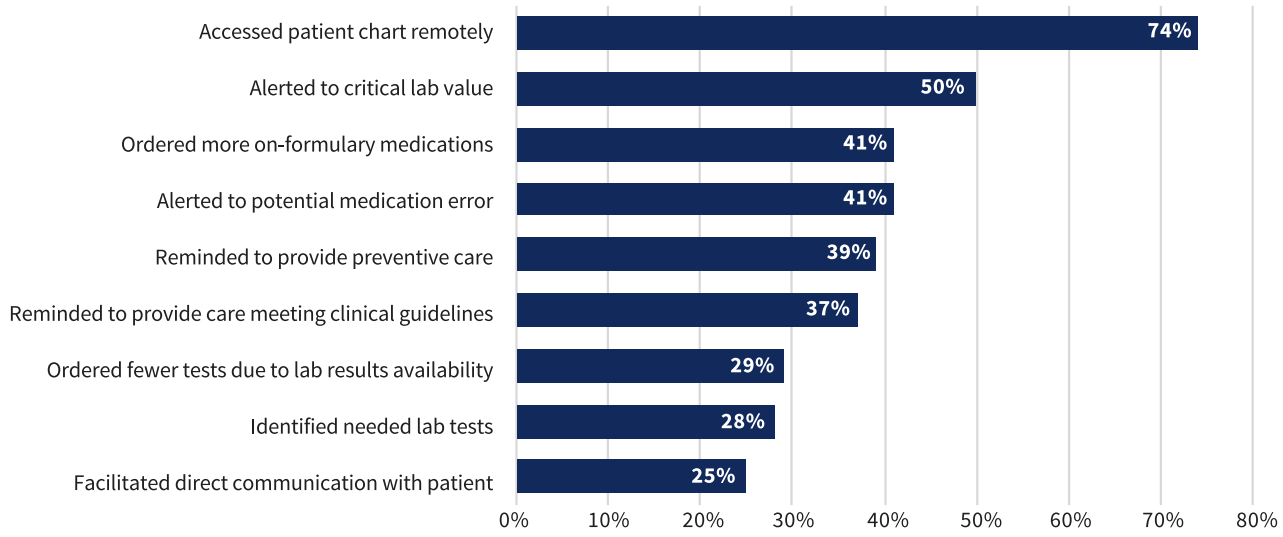
Data Sources and Data Systems

More and more data are becoming available to providers, consumers and researchers, including clickstream data, consumer demographics, telemonitoring results and electronic health records (EHRs).

The ACA required providers to adopt meaningful use electronic health records. So far, about 67 percent of providers have met this requirement,[21] but there is general dissatisfaction with the functionality of the systems.

Currently, physicians are using EHRs primarily to access records, as shown in Figure 9. Over time, the group sees a real growth in the use of electronic health records not only to provide better care to individual patients but also to assist in research and to measure provider and system performance.

Figure 9
Benefits of Electronic Health Records



Source: Office of the National Coordinator for Health Information Technology (ONC). Benefits of EHRs, Last updated Oct. 5, 2017, *https://www.healthit.gov/providers-professionals/benefits-electronic-health-records-ehrs.* Accessed Feb. 1, 2018.

One challenge will be the interoperability of systems. That is, to make the best use of the new data, systems will have to be able to easily receive data, incorporate the data into their systems, and then use the data. Although this goal has not been achieved, the Office of the National Coordinator for Health Information Technology (ONC) has laid out a vision and road map for achieving this goal by 2024.[22]

Clinical Research

Historically, the gold standard for clinical research has been the random control trial (RCT), since this is the best technique for determining if a new procedure or drug is effective on an "all other things being equal" basis. For example, suppose a new drug is being tested. Test subjects are divided into two groups: one that receives the new drug and one that receives a placebo. Results between the groups are compared to determine if there is a statistically significant difference between the two groups.

While it is unlikely RCTs will ever be replaced as the gold standard, we are seeing more emphasis on predictive analytics in research. For example, pharmaceutical companies are using artificial intelligence to narrow the search for potential therapies to solve a specific problem. Once the field is narrowed, potential therapies are then tested using standard clinical trial techniques.

Health plan researchers are using similar techniques to identify gaps in care and to predict large claims. Depending on the organization, there may or may not be a process in place to test the validity and reliability of the models over time.

Section 4. Initiative 18|11

This conference report represents the close of the initiative's Phase 1, where the emphasis was on identifying the main drivers of cost in health care. We also began breaking down the siloes. The purpose of Phase 2 will be to complete some very defined steps to address the identified problems.

PHASE 2 PRIORITIES

In developing the priorities for Phase 2, the leadership team focused on projects that will be led by the three 18|11 partners but will include participants from other organizations. The three priorities are described below. In each case, the deliverable will be a formal document describing the subject in detail. That document will form the basis for follow-up articles, presentations and discussions.

- **The 5/50 Research Project.** This project will focus on the 5 percent of the population that causes 50 percent of the health care costs. The emphasis will be on determining how to predict who will fall into the 5 percent cohort and how to prevent or minimize the cost and variation associated with those people. The work for this project will be performed by SOA staff under the guidance of a project oversight team.

- **Pharmacy Strategic Initiative.** The purpose of this initiative is to provide a description of the pharmacy development and pricing process from the time a new concept is developed until a person picks up a prescription at the pharmacy. The goal will be to provide transparency and understanding to the process. The final document will include a discussion of the recommendations from various organizations. This will be a volunteer-only effort.
- **Managed Care 3.0 Strategic Initiative.** The purpose of this initiative will be to build out the concepts described earlier, with an emphasis on understanding analytical and evaluation techniques. This will also be a volunteer-only effort.

Although the focus will be on the three projects described, we will continue to use resources to advance the discussion on other topics, such as obesity and consumer behavior.

After the deliverables described above are complete, then, undoubtedly, we will look for similar projects. In addition, we will be looking for opportunities to continue breaking down barriers. Although planning has just begun, the 2019 SOA Health Meeting, to be held June 24–26 in Phoenix, will provide a good opportunity for that.

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Next Steps in Health Reform: Hospitals, Medicaid Expansion, and Racial Equity

Dayna Bowen Matthew

Virginia's General Assembly voted to expand Medicaid in May 2018. This decision came just as the commonwealth braced to mark the one-year anniversary of violent Neo-Nazi attacks in Charlottesville that claimed three lives to remind the nation that racism and xenophobia are alive and well in America. These two events also highlight that health care providers — specifically hospitals — could act to significantly reduce the adverse health impacts of racial inequity that affect all populations. Specifically, hospitals could use the opportunity presented by Medicaid expansion to reduce inequitable population health outcomes and model a path forward toward broader racial equity. In this essay, a brief history of hospitals' role in the America's civil rights era provides background to propose an integrated approach to the opioid epidemic as an example of how hospitals could use Medicaid expansion to advance health equity and perhaps even our nation's desperate need for racial healing.

Hospitals' "Quiet" Civil Rights Revolution

During the Civil Rights era, hospitals were important, albeit reluctant[1] leaders in reversing America's egregious history of racial segregation. Until the mid-20th century, hospitals were bastions of American apartheid with unjust and often tragic consequences.[2] A 1957 survey of 721 hospitals in 48 cities reported that 90% of Southern hospitals engaged in the widespread practice of racial segregation, while 83% of hospitals in Northern cities practiced "restrictive integration," admitting a limited number of "Negro patients . . . found in overcrowded wards, in basements and in attics."[3] All hospitals routinely excluded non-whites from residency programs and denied black physicians admitting privileges.[4] However, following the watershed ruling in a hospital desegregation case won by black physicians, dentists, and patients,[5] Congress enacted Title VI of the Civil Rights Act of 1964 to broadly prohibit using federal funds to discriminate based on race, color, or national origin.[6] Notwithstanding some instances of doggedly resistance, hospitals for the most part responded to Title VI enforcement[7] with a "quiet revolution" to admit minority patients for treatment on the same basis as whites.[8]

Thus, hospital desegregation generally provides a marked contrast to the violence that preceded racial desegregation in other aspects of American public

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life. There were no vicious shows of force to put down marches needed to desegregate hospitals.[9] History records no massive resistance to hospital desegregation such as the legislative protest to public school desegregation launched from Virginia by Senator Harry F. Byrd, Sr.[10] Instead, history records that most hospital administrators ultimately voluntarily integrated their institutions when they saw that it made economic sense to do so.[11] Similarly today, hospital administrators who may need more than moral justification to dedicate themselves and their institutions to holistic care, could serve as lodestars toward health equity care because it makes economic sense to do so. The important next step towards equity in health reform, therefore, is to sustainably finance hospitals' social activities. Medicaid expansion provides this opportunity.

In this essay, a brief history of hospitals' role in the America's civil rights era provides background to propose an integrated approach to the opioid epidemic as an example of how hospitals could use Medicaid expansion to advance health equity and perhaps even our nation's desperate need for racial healing.

Medicaid Expansion, Hospitals, and Equity

Medicaid expansion increased equitable access to health care. For example, African American uninsured rates dropped by more than a third largely due to Medicaid expansion under the ACA.[12] Latinos experienced dramatic reductions in uninsurance rates and increased utilization of preventive care following Medicaid expansion.[13] Similarly, people across Virginia — no matter their skin color, race, or ethnicity — will benefit from the Medicaid expansion where 10.3% of Virginians are uninsured.[14]

Before the expansion, Virginia's safety net coverage was among the stingiest. A family of three could make no more than $6,700.00 per year to be Medicaid eligible. These limitations disproportionately disadvantaged racial and ethnic minorities. For example, 26% of Virginian Latinos are uninsured[15] though they represent only 9.4% of the population; Medicaid expansion will considerably aid in closing this gap. But Medicaid expansion will also significantly benefit white Virginians. A majority of the estimated 941,300 Virginians who live in poverty, over 442,000 of whom are white, are now within reach of health care. As a consequence, the interests of white and non-white patients in effectively implementing Virginia's Medicaid expansion are aligned. Moreover, increased access to care, presents an opportunity to improve the availability of improved *quality* of care for all patients as well. Hospitals that take advantage of this alignment to improve the quality of care across the board could reduce health disparities and increase equity even beyond health care. Hospitals represent ideal institutions to assume this leadership role for several reasons.

First, hospitals represent influential "anchor" institutions in the communities they serve. They are large employers[16] and consumers.[17] They serve as a focal point to blend a broad range of stakeholders, services, and funding sources to improve and manage population health. This positioning is especially important in light of evidence that shows population health outcomes are significantly influenced by social health determinants such as the availability of decent, affordable housing and food security.[18] Hospitals are uniquely positioned to use their influence to collaborate outside the health care sector and integrate health care delivery with efforts to reduce social risk factors that adversely affect population health as well as the hospital's "bottom line."[19] Hospital leadership toward equitable social interventions is likely to reverberate beyond health care and because a third of payments for the 73.92 million people currently enrolled in Medicaid will be paid to hospitals,[20] hospital based reforms are likely to touch communities of greatest need.[21]

Second, the majority of hospitals have already taken initial steps toward innovations that that integrate social and medical care, and these quality improvements are already showing promise. Although comprehensive coordination is lacking, a 2017 survey of 284 hospitals found that 88% now screen for social needs at least on an *ad hoc* basis.[22] Over 50% of hospitals reported they link patients with services to address interpersonal violence issues, transportation needs, utility and employment concerns through referral systems and partnerships with other community providers. Larger hospital institutions are moving beyond referrals, directing significant resources toward social needs. For example, the Corporation for Supportive Housing reports that hospitals have invested nearly $100 million in housing development for people experiencing homelessness and in turn have reduced emergency department visits. Some non-profit hospitals are responding to community health needs assessments by investing community benefit dollars in reduc-

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ing food insecurity. ProMedica, a health system with hospitals in Ohio and Michigan, allocates $100 million a year to operate "food pharmacies" staffed with dietitians to counsel patients, and chefs who conduct cooking classes in neighborhoods previously designated as food deserts.[23] Nationally, a growing number of hospitals are forming Medical Legal Partnerships (MLPs) that embed lawyers in health delivery teams to address legal problems related to social determinants that harm patient health. The oldest is at Boston Medical Center, one of 189 general, children's, and VA hospitals nationwide that address unmet legal needs as a social determinant of population health.[24] As hospitals leverage their size and influence to comprehensively close racial health disparities, these institutions can significantly contribute to reducing the disproportionate burden that vulnerable patients experience with other social risk factors generally.

Third, hospitals are increasingly using Medicaid flexibility to overcome the lack of systemic, sustainable funding for strategies that can reduce social risk factors that threaten population health. Admittedly, the business case for hospital investments in social services is yet developing. It is clear, on one hand, that the cost of care is adversely affected by social risk factors. On the other hand, hospital activities needed to address social needs require substantial investment and the evidentiary basis to show which investments produce the most meaningful returns is still emerging. Medicaid has proved one of the most promising sources of funding flexibility to allow hospitals and other health providers to deliver integrated care, while proving how well the concept of social service integration works.

Medicaid Section 1115 Research and Demonstration waivers, Section 1915(c) waivers, and Accountable Care Collaborative initiatives allow states to provide some non-medical services to eligible Medicaid beneficiaries. For example, in Colorado, seven Regional Care Collaborative Organizations (RCCOs) manage and coordinate community and social services for Medicaid beneficiaries and reimburse a small per-member-per-month (PMPM) add-on for enhanced care management that includes medical legal partnerships. In Vermont, a Global Commitment to Health 1115 waiver invests PMPM funds to support families with children who have disabilities with substance abuse treatment and respite housing. Other states have pooled (or "blended") Medicaid funds with other state agency funds to offer integrated medical and social services. Wraparound Milwaukee is an example, where Medicaid, child welfare, and juvenile justice funds are blended to cover residential treatment, corrections placement, education, and mental health services.

States can permanently extend Medicaid funding to include social services such as supportive housing for mentally ill patients using Section 1915(i) or State Plan Amendments. Although Medicaid cannot currently use federal funds to directly reimburse housing, employment, education, or other social services, especially where value-based, reimbursement systems are in place, this is the program that has been most widely used to finance a sustainable, public health approach to care for vulnerable populations.[25] Perhaps this is part of the reason why polls showed that 83% of Virginians, and 84% of Americans nationwide support keeping the ACA's Medicaid Expansion.

Hospitals are proving particularly adept at managing Medicaid financing, especially in expansion states. Medicaid dollars equal approximately 17% of all national health expenditures paid by governments in 2016, or approximately $565.5 billion. Hospitals represent one-third of all Medicaid spending, the largest share of the program.

Hospitals are proving particularly adept at managing Medicaid financing, especially in expansion states. Medicaid dollars equal approximately 17% of all national health expenditures paid by governments in 2016, or approximately $565.5 billion.[26] Hospitals represent one-third of all Medicaid spending, the largest share of the program.[27] Yet hospitals received only 88 cents for every dollar spent caring for Medicaid patients.[28] Nevertheless, annual Medicaid spending per-enrollee is slowing,[29] due in part to improved cost controls that hospitals have employed.[30] In many states, those cost controls include screening for social risk factors, and then connecting patients to social services that can reduce costs and improve outcomes for Medicaid populations. In the thirty-nine states that offer Medicaid through managed care organizations,

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value-based payment models that allow increased attention to the social determinants of health likely explain improved financial performance.

Hospitals in expansion states saw revenues increase faster,[31] and uncompensated care costs decrease faster as compared to hospitals in non-expansion states. According to a recent study, the ACA Medicaid expansion was associated with a significant $3.2 million decline in mean uncompensated care costs. Hospitals in Medicaid expansion states also saw steep declines in uninsured hospital visits, and sharp increases in Medicaid covered visits following expansion.[32] As a result, annual Medicaid revenues increased an average of $5.0 million per hospital through 2015, while uncompensated care costs dropped $3.2 million.[33] In contrast, hospitals in the states that did not expand Medicaid experienced flat Medicaid revenues and a decrease in uncompensated care of only $1.0 million in 2015. Moreover, growth in per enrollee spending continued to decline in 2016.[34] These facts have put hospitals, along with the patients they serve, on the front lines of the effort to protect Medicaid each time Congress considers ACA reform.

Taken together, the features that make hospitals influential leaders in effectively using Medicaid expansion to increase access and improve the quality of health care delivery, also argue in favor of hospitals taking a leadership role in improving health equity — a role which hospitals played historically in response to considerable governmental pressure but could play today on their own. The American opioid crisis provides an illustrative example.

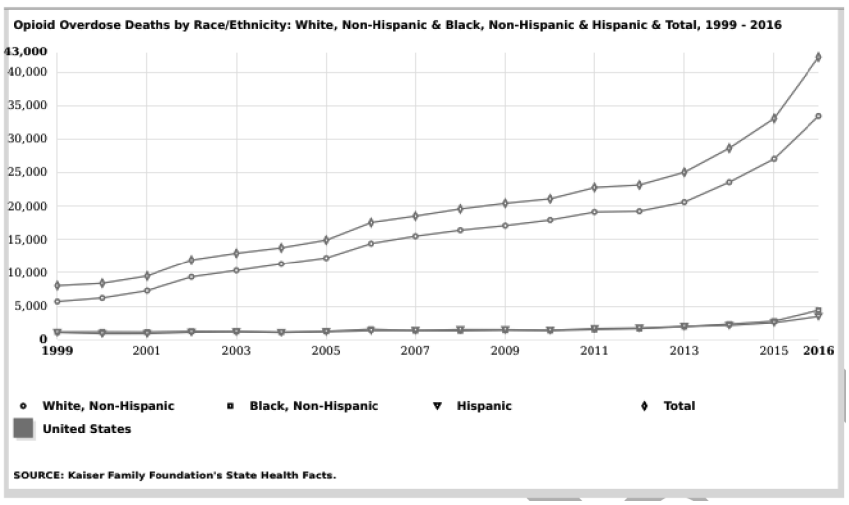
How Hospitals Could Advance Racial Equity in the Opioid Crisis

Many have poignantly written about the racial divide that emerged in America as drug dependence became an increasingly white "public health epidemic" beginning in 1999, rather than the "criminal justice crisis" it was when predominantly black and brown people were victims during the 1970s and 1980s.[35] The table below betrays the racialized evolution of the opioid epidemic.

The fact that hospitals are an essential part of the solution to this crisis is evinced by the fact that the most reliable source of these overdose data are hospital emergency departments (ED) which the Centers for Disease Control rely upon to track drug deaths long before they receive data from death certificates.[36] Studies have shown that opioid over-prescribing to hospital patients contributes significantly to increasing misuse of opioids.[37] Moreover, hospitals are a crucial point of contact for opioid victims in crisis. Hospital EDs experienced a 30% increase in the number of visits related to opioid overdoses in 2017[38] making the hospital setting an important opportunity for coordinated care linking services from health departments, mental health professionals, community based organization and law enforcement to prevent repeat overdoses.[39] Hospitals also have an economic incentive to better manage opioid treatment; the average cost to treat opioid dependent patients admitted to intensive care units was over $92,000 in 2015, a 58% increase in just 6 years.[40] Thus, if hospitals act to innovate by addressing the social risk factors that underlie opioid

Table 1

Opioid Overdose Deaths by Race/Ethnicity: White, Non-Hispanic & Black, Non-Hispanic & Total, 1999-2016



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addiction, they could improve outcomes while reducing treatment costs for this patient population.

Because the same social risk factors that have contributed significantly to minority patients' disproportionately poor health outcomes, are also contributing to the overwhelmingly white tragedy of opioid abuse, addiction, and death, although legislators, courts, police and other government officials have erroneously aimed disparate solutions toward substance abuse victims based on their race and ethnicity, hospitals are ideally situated to use Medicaid expansion funds more equitably to effectively treat substance abuse victims of all races. In short, hospitals could lead a second "quiet revolution" in health care by demonstrating that using Medicaid to deliver equitable and just health care can benefit hospitals and their patients regardless of their race, color, or national origin. Indeed, an equitable approach to opioid policy would be revolutionary.

Reversing Racialized Responses to Substance Abuse

The nation began its failed experiment with criminalizing drug addiction during the first opioid epidemic which started in the mid-1800s, and continued through the 1920s. During this first crisis, victims were largely white, native-born, well-to-do women, their prescribing physicians, and Chinese migrant laborers who smoked opioids. While records are not exact, estimates are that more than two million people abused these drugs during and after the Civil War, but by 1920 the epidemic peaked when 80,000 persons were addicted to opiates.[41] Early legal interventions focused on the supply side of the problem. Criminalizing the supply of opiates worked because they reduced drug use by wealthier addicts, but these laws did little for the remaining victims who were lower-income males, often Civil War veterans suffering from what came to be called "morphonism or soldier's disease."[42] The best evidence suggests that these victims were mostly southern whites as blacks were much less inclined toward opioids during this first epidemic. Regardless of race, the opioid victims left behind in the first epidemic shared much in common with the victims of the nation's second opioid epidemic: they were young males, poorly educated, and exposed to violent trauma early in life.

America's second opioid epidemic extended from approximately 1970 until 1985. This crisis was concentrated in the nation's city centers which were also severely affected by increased violent crime rates that accompanied this period of poverty and desperation.[43] *The New York Times* reported in 1986 that there were 500,000 heroin addicts in the United States, 200,000 of whom lived in New York City.[44] While national statistics on the second heroin epidemic are difficult to compile, New York City numbers are representative. By the mid 1970's, the New York City Health Department reported in excess of 650 heroin-related deaths a year. Data from hospitals showed that in 1981 51.5% of heroin users who presented in EDs were in their 20s and 35.5% were in their 30s.[45] David Courtwright estimates the number and ratio of black and white heroin users in treatment peaked around 1970 when just under 6,000 whites and nearly 8,000 blacks entered treatment.[46] The epidemic's largely black and Hispanic victims were treated as a public safety rather than public health concern. They landed in prison when, predictably, their untreated drug addiction led to spikes in crime.[47] Importantly, however, even the white victims of this second drug crisis, many of who were Vietnam War veterans, shared much in common with victims of the first epidemic. All, whether white, black, or Latino, were predominately young males, poorly educated, and suffered exposure to violent trauma.

The tragic and unprecedented death toll affecting predominately white victims of America's current and third opioid epidemic are well known. Current data confirms that social determinants are key roots of the crisis.[48] History teaches that effective opioid treatment must address unemployment, low wages, and poor educational attainment, three social determinants highly correlated with opioid deaths for all races, during all three epidemics. The fact that these determinants affect all races presents an opportunity for health providers to increase equitable health treatment for all.

Improving access to employment that pays living wages is an example of one equitable opioid policy that hospitals could help drive. As a county's unemployment rates increase by 1 percentage point, opioid death rates rise by 3.6%, regardless of the race or ethnicity.[49] Wage growth is also a predictor of overdose death.[50] These correlations persist today among predominately white workers,[51] just as they did among blacks and Latinos during the second opioid epidemic. Between 1972 and 1980, blacks as a proportion of the nation's employed workforce remained unchanged at 9.4% while white employment rose by 18%.[52] Between 1970 and 1981, the real median income for black families decreased by 8.3% and the ratio of black to white median family income declined steadily to 55%.[53] Educational attainment improved for all races but blacks were under-represented compared to non-blacks at each stage of the educational pipeline; they represented a lower percentage of all high school graduates, college freshmen, and college graduates in 1979 than they did in 1972.[54] Low income, employment, and

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wages increased heroin dependence among minorities just as similar conditions are associated with whites' opioid abuse today. Hospitals that pay workers well and collaborate with job training and education sectors to address these social needs will make an enormous impact on the opioid crisis for communities, regardless of race or ethnicity.

The confluence of racial unrest and Medicaid expansion in Virginia can inspire a national reimagining of health care aimed at equalizing health and social outcomes for all. The urgent need for innovative opioid intervention presents a fertile proving ground. We know that health outcomes are worse for all where racial division is greatest.[55] We know also that Medicaid covers almost 4 of 10 non-elderly adults with opioid addiction.[56] Hospitals, therefore, could employ Medicaid expansion to once again revolutionize health care and equity in America.

Note

The author has no conflicts to declare.

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ITUP
Insure the Uninsured Project

› Legislative Update

Governor Newsom's First Budget Health Care Highlights

In his first act as Governor of California, on his first day, Gavin Newsom announced executive actions and budget proposals to expand health coverage and improve affordability, signaling that health care will be one of his top priorities. Governor Newsom stated his intent to move California closer to the goal of health care for all, positioning California as a national leader in strategies to expand coverage.

As part of the Governor's announcement, he released a letter to President Trump and Congress, urging them to create new Transformational Cost and Universal Coverage Waivers for states. In the letter, he states, "I ask that you amend federal law to enable states to apply for and receive Transformational Cost and Universal Coverage Waivers, empowering California to truly innovate and to begin transformative reforms that provide the path to a single-payer health care system." As outlined in the letter, under the new waivers, states would have the flexibility to, among other things, move funds to best meet the needs of all the state's population, use public exchanges as a platform for portable benefits, and assure competition by making public plan options available in areas with limited health carriers. The Governor also requested that the President and Congress build on the successes of the Affordable Care Act (ACA) by reinstating the individual mandate, providing federal premium assistance for individuals above 400 percent of the federal poverty level (FPL), expanding federal subsidies that lower out-of-pocket costs for low-income individuals in exchange coverage (known as cost-sharing reductions), and implementing a reinsurance program to protect health plans from very high cost claims for health services above a specified threshold.

On January 10, 2019, Governor Newsom introduced his proposed budget for state fiscal year 2019-20, including elements of the new reform plan and other potentially significant investments to improve coverage and care in California.

This ITUP blog highlights health care items in the Governor's proposed budget.

Health Care Coverage and Affordability

- ***Expand Medi-Cal, California's state Medicaid program, to cover undocumented young adults up to age 26.*** The budget proposes $260 million ($194 million state general fund (GF)) to cover an estimated 138,000 undocumented young adults (up to age 26) who would otherwise be eligible for Medi-Cal except for their immigration status. Currently, undocumented adults are limited to Medi- Cal coverage for emergency and pregnancy-related services. This proposal builds on California's 2016 Medi-Cal expansion covering low-income children regardless of immigration status and would make California the first state in the nation to adopt such a policy.

- ***Expand premium subsidies in Covered California to improve affordability for low- and middle-income Californians.*** The budget proposes to build on and expand the ACA premium subsidies for individual coverage in California's ACA marketplace, Covered California. ACA premium tax credits reduce premiums for individuals up to 400 FPL ($48,000 for an individual,

$98,000 for a family). The Governor proposes additional state-based premium assistance for individuals up to 400 percent FPL and new state subsidies for individuals between 400-600 FPL (up to $72,840 for individuals and $150,600 for a family of four). Researchers conducting the California Health Interview Survey found that even with the availability of ACA subsidies, eligible individuals cite affordability as the primary reason for remaining uninsured.[1]

- ***Implement a state coverage requirement to replace the ACA individual mandate.*** The Governor proposes a state individual coverage requirement, with a financial penalty, and proposes to use the revenues to fund increased premium assistance in Covered California as described above. In presenting the budget, the Governor said the penalty would raise approximately $500 million in additional state revenues. The proposed state coverage requirement would continue the ACA individual mandate, following congressional action last year to eliminate the federal financial penalty for not having coverage starting in 2019. Because of the elimination of the federal individual mandate tax penalty, researchers estimate that without intervening state or federal action between 150,000 and 450,000 more Californians will be uninsured in 2020, increasing to 790,000 newly uninsured Californians by 2023.[2] University of California researchers estimate the number of uninsured non-elderly Californians would grow from 3.5 million to more than four million by 2020 with the elimination of the federal mandate.[3]

  A workgroup being led by Covered California is looking at options to improve affordability for coverage in the exchange, with the final report due February 1, 2019. In the most recent draft of the workgroup findings, "Options to Improve Affordability in California's Individual Health Insurance Market," Covered California consultants found that pairing increased subsidies with an individual mandate resulted in a greater number of uninsured Californians getting health coverage than subsidies without a mandate.

For more information on strategies to expand coverage and improve affordability see the ITUP issue brief, California Strategies: Covering California's Remaining Uninsured and Improving Affordability.

Lowering Prescription Drug Costs

- ***Establish the nation's largest purchasing program for prescription drugs, leading to a "single- payer" system for prescription drugs in the state***. On January 7, 2019, the Governor signed an executive order directing the Department of Health Care Services to standardize and transfer all pharmacy services provided by existing Medi-Cal managed care plans to a fee-for-service system and to negotiate prescription drug prices on behalf of all 13 million Medi-Cal beneficiaries. Currently, the state and health plans participating in Medi-Cal (serving 10.6 million Medi-Cal managed care members as of December 2018)[4] negotiate drug prices separately. According to the Governor, this proposal will result in hundreds of millions of dollars in annual Medi-Cal savings starting in FY 2021-22. The budget also proposes to strengthen the existing California Pharmaceutical Collaborative, administered by the state Department of General Services, which allows state and local governments to access state contracts for purchasing bulk pharmaceuticals and related pharmaceutical services at reduced cost. The Governor also proposes to enact a new state "bulk purchasing prescription drug program" for public and private payers.

Mental Health Services

In 2017, almost one in five Californians reported needing help for a mental health condition or substance use disorder. Of those who needed help, only 60 percent saw a health professional for their condition.[5] Governor Newsom proposed the following initiatives related to mental health services:

- Increase training for mental health workforce programs, with a one-time allocation of $50 million state GF.

- Improve early treatment and detection of psychosis in children through a one-time allocation of $25 million GF for demonstration projects focused on detecting psychosis and intervening when a young person first begins experiencing episodes.

- Provide $100 million state GF available through 2025 in the existing Whole Person Care Pilot (WPCP) Program. The new funds are intended for supportive housing services for individuals who are homeless or are at risk of becoming homeless, with a focus on people with mental illness. The WPCP is a program under California's existing Section 1115 federal Medicaid waiver which provides funding for 25 local projects that coordinate health, behavioral health, and social service needs for Medi-Cal beneficiaries.

- Expedite the allocation of $2 billion in bond funding for the No Place Like Home program, approved by voters in the 2018 November election. This program is intended to fund permanent supportive housing for persons in need of mental health services who are homeless or at risk of becoming homeless. The bond is to be repaid with Mental Health Service Act funding, which imposes a one percent income tax on wealthy individuals to fund mental health services.

Proposition 56 Tobacco Tax Revenues

Proposition 56, passed by voters in 2016, increased the state tax on tobacco products to backfill existing tobacco tax funded programs and to support new health care and tobacco-use prevention programs, including Medi-Cal, physician training, and research on tobacco-related diseases. The budget proposes the following distribution of Proposition 56 funding for the Medi-Cal program:

- Continue Proposition 56 supplemental payments and rate increases for certain Medi-Cal providers ($3.2 billion including $1.05 billion from Proposition 56 funds.)

- Create a Value-Based Payment Program with incentives for providers, through Medi-Cal managed care plans, to meet specific metrics in management of chronic diseases, prenatal/post-partum care, and behavioral health integration, with the stated goal of improving care for certain high-need high- cost populations ($360 million including $180 million in Proposition 56 funds.)

- Increase early developmental screenings for children ($60 million including an additional $30 million in state GF) and trauma screening for all children ages 0-21 and for adults enrolled in the full-scope Medi-Cal program (for example, not including adults only eligible for emergency Medi-Cal services) ($45 million including $22.5 million in Proposition 56 funds).

- Additional $50 million in funding for Medi-Cal family planning services. The budget estimates that the new state funding could yield as much as $500 million in total funds as a result of enhanced federal Medicaid match for family planning services.

Other Health Care Proposals

- ***County funding for indigent care services***. The budget proposes to change the formulas that annually redirect county realignment funds to the state, reflecting a drop in county costs for health care services for low-income uninsured residents following ACA implementation. The budget proposes to redirect an additional $63 million in 2019-20 to offset state GF costs in the CalWORKS cash assistance program for low-income families.

  Known as the "AB 85 redirection," state law requires counties to shift a portion of county health realignment revenues to reduce state costs in CalWORKS. Prior to the ACA, county indigent care programs served low-income uninsured individuals not eligible for Medi-Cal, primarily childless adults. Following the ACA expansion of Medi-Cal to low-income adults, the state and counties agreed on formulas to redirect local health realignment funds. Realignment assigns counties fiscal and program responsibility for specific health and social services programs, in exchange for dedicated revenues counties receive to defray program costs. California's complex realignment structure has been revised over time since first enacted in 1991, including the AB 85 changes enacted in 2013. According to the Legislative Analyst's Office, in 2018-19 counties transferred $773 million in health realignment funds.

- ***In-Home Supportive Services***. The budget proposes to restore the seven percent across-the-board service hour reductions for In-Home Supportive Services (IHSS), scheduled to expire in July 2019 ($342.3 million state GF.) The budget also proposes some relief for counties from their growing share of financial responsibility for IHSS. IHSS provides housework, transportation, and personal care services to low-income aged, blind, and disabled Medi-Cal beneficiaries at risk of nursing home placement.

- ***State Surgeon General***. On January 7, Governor Newsom signed an executive order to establish a California Surgeon General tasked with addressing the root causes of California health challenges and inequities. According to the order, the new California Surgeon General will be a key spokesperson on public health issues, tasked with providing Californians with the best medical and scientific evidence through public health reports and other tools. The Surgeon General is also required to gather broad-based stakeholder input on potential solutions to the pressing public health challenges facing the state.

Notes

[1] Laurel Lucia and Ken Jacobs, "Towards Universal Health Coverage: California Policy Options for Improving Individual Market Affordability and Enrollment," UC Berkeley Labor Center, March 2018.
[2] Miranda Dietz, Laurel Lucia, Dylan H. Roby, Ken Jacobs, Petra Rasmussen, Xiao Chen, Dave Graham-Squire, Greg Watson, Ian Perry, and Gerald Kominski, " California's Health Coverage Gains to Erode Without Further State Action," University of California, Berkeley, Center for Labor Research and Education, and University of California, Los Angeles, Center for Health Policy Research, November 2018.
[3] Dietz, Lucia, Roby, Jacobs, Rasmussen, Chen, Graham-Squire, Watson, Perry, and Kominski, "California's Health Coverage Gains to Erode Without Further State Action."
[4] Department of Health Care Services, Medi-Cal Managed Care Enrollment Report, December 2018.
[5] UCLA Center for Health Policy Research, "2017 California Health Interview Survey (CHIS)," October 2018.

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:

- Blue Shield of California Foundation
- California Community Foundation
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United States Government Accountability Office

Report to Congressional Committees

January 2019

HEALTH INSURANCE EXCHANGES

Claims Costs and Federal and State Policies Drove Issuer Participation, Premiums, and Plan Design

GAO-19-215

GAO Highlights

Highlights of GAO-19-215, a report to congressional committees

January 2019

HEALTH INSURANCE EXCHANGES

Claims Costs and Federal and State Policies Drove Issuer Participation, Premiums, and Plan Design

Why GAO Did This Study

Since 2014, millions of individuals have purchased coverage through the health insurance exchanges established under PPACA. PPACA altered the individual health insurance market by setting federal standards for coverage and subsidizing exchange coverage for certain low-income individuals. In the first 5 years of exchanges, issuers have moved in and out of the market and increased premiums, but little is known about issuers' claims costs or the factors driving their business decisions.

PPACA included a provision for GAO to examine exchange activities, including issuers' experiences participating in the individual market exchanges. This report examines (1) claims costs of issuers participating in exchanges, and (2) factors driving selected issuers' changes in exchange participation, premiums, and plan design. GAO reviewed data from nine issuers participating in five states, which were selected to represent a range in size, tax status, and exchange participation. The five states—California, Florida, Massachusetts, Minnesota, and Mississippi—were selected to provide variation in geography and whether they had a federally facilitated or state-based exchange. GAO also conducted a literature review, reviewed federal data, and interviewed the selected issuers, officials in the selected states, and stakeholder groups.

View GAO-19-215. For more information, contact John E. Dicken at (202) 512-7114 or dickenj@gao.gov.

What GAO Found

Since 2014, when health insurance exchanges established by the Patient Protection and Affordable Care Act (PPACA) began operating, issuers' medical costs for enrollees (claims costs) in the individual market have varied widely.

- **Claims costs were higher than expected in early years (from 2014-2016).** Reviewed studies and interviews with selected issuers indicate that claims costs for plans sold to individuals were higher than expected, in some cases between 6 and 10 percent higher in 2014. This was due to enrollees being sicker than expected, higher costs for some services, and certain federal policies, such as initial policies for special enrollment periods that issuers were concerned allowed for potential misuse.
- **Claims costs generally grew from 2014 to 2017, but selected issuers sometimes experienced wide swings in costs from year to year.** Most issuers attributed the volatility in costs, in part, to large changes in the number and health of enrollees each year.
- **Average monthly claims costs varied significantly across issuers in the same state.** For selected issuers, differences in per member per month claims costs within a given state were often more than $100—significant given that median per member per month claims costs were about $300.

Selected issuers also varied significantly in their decisions to expand or reduce their participation in the exchanges and make changes to premiums and plan design. Issuers cited several key factors driving changes.

- **Claims costs.** Selected issuers noted that claims costs drove their decisions regarding participation, premiums, and plan design. For example, increasing claims costs was a consistent factor driving premium increases.
- **Federal funding changes.** Selected issuers cited the planned phase out of federal programs that helped issuers mitigate risk, including payments and adjustments for issuers with higher cost enrollees, the limited funding for one of those programs, and the ending of federal payments for cost-sharing for certain enrollees, as reasons for reducing participation and increasing premiums.
- **State requirements and funding.** Selected issuers provided examples of state requirements that resulted in reduced participation and increased premiums. However, issuers also cited examples where state policies minimized premium increases or variations in benefit design for issuers participating in the state's exchange.

Looking to 2018 and 2019, selected issuers said that changes in federal and state policies would continue to affect decisions, particularly on premium changes.

The Department of Health and Human Services provided technical comments on a draft of this report, which GAO incorporated as appropriate.

Contents

Abbreviations

CMS	Centers for Medicare & Medicaid Services
HHS	Department of Health and Human Services
MLR	medical loss ratio
PPACA	Patient Protection and Affordable Care Act
QHP	qualified health plans

U.S. GOVERNMENT ACCOUNTABILITY OFFICE
441 G St. N.W.
Washington, DC 20548

January 28, 2019

Congressional Committees

Since 2014, millions of individuals have enrolled in individual market health insurance plans purchased through health insurance exchanges established by the Patient Protection and Affordable Care Act (PPACA).[1] PPACA included provisions that were intended to make health insurance more available and affordable for individuals seeking coverage. These provisions included the establishment of exchanges—marketplaces where individuals can compare and select among plans that meet certain standards offered by participating private issuers.[2] PPACA also made federal financial assistance available to eligible individuals purchasing coverage through the exchanges.

In addition to the establishment of the exchanges, PPACA also set new federal requirements for issuers, including those offering coverage on the individual market. The individual market consists mainly of coverage sold directly to individual consumers without access to group coverage, such as what is offered by an employer. These federal requirements apply to coverage sold both through the exchanges and outside the exchanges, and represented a shift for the market, which had previously been regulated by the states. The new requirements included prohibiting issuers from denying coverage on the basis of a pre-existing condition and generally requiring issuers that participate on the exchanges to provide qualified health plans (QHP), which are plans that provide essential health benefits, among other things.[3] The combination of the

[1]Pub. L. No. 111-148, 124 Stat. 119 (2010), as amended by the Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, 124 Stat. 1029 (2010). In this report, references to PPACA include any amendments made by the Health Care and Education Reconciliation Act of 2010. Almost 12 million individuals selected or were automatically re-enrolled in an individual market health plan through the exchanges for plan year 2018 in the 50 states and District of Columbia. See, Centers for Medicare & Medicaid Services, Health Insurance Exchanges 2018 Open Enrollment Period Final Report (Baltimore, M.D., Apr. 3, 2018).

[2]An issuer is an insurance company, insurance service, or insurance organization that is required to be licensed to engage in the business of insurance in a state.

[3]Essential health benefits are a core package of health care services that include emergency services, hospitalization, maternity and newborn care, and preventive services, among others things, that all QHPs offered through the exchanges must cover. QHPs may also be offered outside the exchanges.

new incentives for coverage and the new requirements for issuers expanded the size of the individual market. However, it also created uncertainty for issuers about how to set prices given the lack of data on the health and likely use of medical services for those enrolling. Uncertainty in the individual market is not new. Historically, the individual market, which is smaller than other markets, such as the group market that is largely comprised of employers purchasing coverage for groups of employees, presented greater uncertainty and risk for issuers.

There have been concerns in recent years that certain changes under PPACA, along with subsequent federal policy decisions, have led to instability in the individual market. Reports point to issuers leaving the market, certain regions of the country being at risk of not having any issuers offering coverage, and large increases in premiums that may make coverage unaffordable for those who do not receive federal financial assistance. However, little is known about what is driving issuers' decisions about participation, premiums, and plan design and the extent to which the medical costs for enrollees—referred to as claims costs—are influencing those decisions. PPACA included a provision for GAO to examine exchange activities, including issuers' experiences participating in the exchanges.[4] In this report, we examine:

1. What is known about the claims costs for issuers participating in individual market exchanges, and
2. the factors driving selected issuers' changes in individual market exchange participation, premiums, and plan design.

To examine what is known about the claims costs for issuers participating in the individual market exchanges (referred to in this report as exchanges), we performed a literature review to identify studies that reported original research on issuers' claims costs or financial performance in the individual market in general or exchanges specifically.[5] Overall, we identified 26 relevant studies, which included

[4]Pub. L. No. 111-148, § 1313(b), 124 Stat 119, 185 (2010). Our first report to address elements of this provision was issued in September 2016. See, GAO, *Patient Protection and Affordable Care Act: Most Enrollees Reported Satisfaction with Their Health Plans, Although Some Concerns Exist*, GAO-16-761 (Washington, D.C.: Sept. 12, 2016).

[5]For this literature review, we searched research databases, including ProQuest, MEDLINE, Scopus, and DIALOG health care files, to identify studies published between January 1, 2014 and April 13, 2018, that met our criteria, including peer-reviewed studies. To identify additional relevant studies, we also conducted web searches between January and July 2018 and interviewed stakeholders.

academic papers, trade articles, and working papers. (App. I provides a list of the studies that we reviewed.) Additionally, we interviewed nine issuers participating in the exchange in one or more of five states between 2016 and 2018. We selected these five states—California, Florida, Massachusetts, Minnesota, and Mississippi—to achieve variation in whether the state had a state-based exchange or utilized the federally facilitated exchange, geographic area, and the number of issuers participating in the exchanges. (See app. II for additional information on our selected states.) We selected the nine issuers to achieve variation in size, tax status, and plan type.[6] We reviewed data from the selected issuers on incurred claims, enrollment, medical loss ratios (MLR), and profitability—for the selected states in which they participated—in 2014 through 2017, and to the extent projections were available for 2018 and 2019.[7] We also reviewed data and documents the selected issuers filed with the Centers for Medicare & Medicaid Services (CMS), the agency within the Department of Health and Human Services (HHS) responsible for overseeing exchanges. In addition, we interviewed CMS officials and other stakeholders to obtain a broad perspective on issuers' claims costs.[8]

To examine the factors driving the selected issuers' changes in individual market exchange participation, premiums, and plan design, we reviewed state and federal data compiled by the Kaiser Family Foundation on exchange participation from 2014 through 2018 to assess whether the selected issuers expanded, contracted, or had no change in the extent of their participation in the selected states.[9] With regard to changes in premiums, we reviewed data from selected issuers on premium revenue

[6]Our selected issuers are Blue Cross Blue Shield of Massachusetts, Blue Cross and Blue Shield of Minnesota, Centene, Florida Blue, HealthPartners, Humana, Kaiser Permanente, Molina Healthcare, and Neighborhood Health Plan. At least two of these issuers participated in each selected state.

[7]An MLR serves as a basic financial indicator, expressing the percent of premiums that insurers spend on their enrollees' medical claims and activities to improve health care quality, as opposed to administrative costs.

[8]Stakeholder groups we interviewed include the National Association of Insurance Commissioners, the American Academy of Actuaries, the Society of Actuaries, and industry groups, such as America's Health Insurance Plans and the Alliance of Community Health Plans.

[9]The Kaiser Family Foundation is a non-profit organization focusing on national health issues. The organization's exchange participation data is compiled from federal data from healthcare.gov, state-based exchange enrollment websites, and issuer rate filings to state regulators.

from 2014 through 2017, and to the extent that projections were available for 2018 and 2019. We also reviewed data and documents filed by the issuer with CMS to supplement the premium data provided by issuers. To identify examples of plan design changes made by our selected issuers, we reviewed data submitted by issuers participating in the federally facilitated exchanges to CMS that detail covered benefits and cost-sharing requirements for QHPs. Specifically, we reviewed CMS data for 2014 through 2018 submitted by four selected issuers that participated in Florida—one selected state using the federally facilitated exchange. We also reviewed studies identified in our literature review to determine how participation, premiums, and plan design decisions—including covered benefits, cost-sharing requirements and provider networks—made by our selected issuers' compared to national trends. Finally, we interviewed selected issuers and states, CMS, and stakeholders about exchange participation, premiums, and plan design changes and the reasons for any changes.

Our findings related to the experiences of the selected issuers in our selected states are not generalizable. To assess the reliability of issuer data, we interviewed knowledgeable officials and tested the data for apparent errors. To assess the reliability of the data from CMS and the Kaiser Family Foundation, we reviewed relevant documentation and interviewed knowledgeable officials. For the Kaiser Family Foundation data, we also tested the data for apparent errors and corroborated the findings with the selected issuers. On the basis of these efforts, we determined that these data were sufficiently reliable for the purposes of our reporting objectives.

We conducted this performance audit from December 2017 through January 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The individual market, also known as the non-group market, consists of individuals who obtain coverage on their own rather than through a group health plan, such as one offered by an employer, or through public health insurance programs, such as Medicare or Medicaid. Most consumers obtain health insurance through their workplace in the group market when available, as health insurance is generally cheaper for enrollees because

the employer typically pays a portion of enrollee premiums. Historically, the individual market has been more volatile than the group market, because it consisted of those who generally could not purchase insurance elsewhere.

Changes to the Individual Market under PPACA

PPACA introduced significant changes to the individual market, including how consumers shop for insurance coverage, the financial incentives for consumers and issuers to participate, and the rules governing issuers.

Establishment of exchanges

PPACA directed each state to establish an exchange—referred to as a state-based exchange—or elect to use the federally facilitated exchange established by HHS. For plan year 2018, 34 states had a federally facilitated exchange for the individual market, and 17 states, including the District of Columbia, had state-based exchanges.

Issuers are not required to participate in the exchanges, but those that do are generally required to offer QHPs that comply with certain requirements established by PPACA. For example, such plans are required to offer essential health benefits and follow annual limits on enrollee cost-sharing specified by HHS each year. CMS is responsible for overseeing issuer compliance with the exchange requirements for states using the federally facilitated exchange, while states with state-based exchanges are responsible for ensuring issuer compliance. Each state-based exchange has different time frames for review, but issuers participating in states that utilize the federally facilitated exchange have been required to submit applications for QHPs, including rates, between April and June of the previous year for plan years 2015 through 2018.

Financial incentives for consumers

PPACA required most consumers to have health insurance or pay a tax penalty, a requirement known as the individual mandate.[10] Consumers purchasing coverage through the exchanges may be eligible, depending on their incomes, to receive federal financial assistance to offset the costs of coverage. PPACA created two types of federal financial assistance for consumers.

[10]Pub. L. No. 111-148, § 1501(b), 124 Stat. 119, 244 (2010) (codified at 26 U.S.C. § 5000A). However, beginning January 1, 2019, individuals who fail to comply with the individual mandate will no longer face a tax penalty due to the enactment of subsequent legislation. See Pub. L. No. 115-97, § 11081, 131 Stat. 2054, 2092 (2017).

- **Premium tax credits** are designed to reduce an eligible individual's premium costs and are generally for consumers with household incomes of at least 100 percent, but no more than 400 percent, of the federal poverty level.
- **Cost-sharing reductions** are designed to lower enrollees' deductibles, coinsurance, and co-payments and are for consumers who are eligible for premium tax credits, have household incomes between 100 and 250 percent of the federal poverty level, and enroll in certain plans.[11]

As these types of federal financial assistance are only available for consumers purchasing coverage through the exchanges, issuers may be incentivized to participate in the exchanges.

Risk mitigation programs for issuers

To limit the increased risk issuers could face due to new market conditions, PPACA also required the establishment of three risk mitigation programs: a permanent "risk adjustment" program and two temporary programs—"reinsurance" and "risk corridors"—set to expire after 3 years.[12] Each of these programs uses a different mechanism intended to both improve the functioning of the individual market and to stabilize the premiums that issuers charge for health coverage both through and outside the exchanges.

- **Risk adjustment program.** This permanent program transfers funds from issuers with lower-than-average risk enrollees to those with higher-than-average risk enrollees within a respective state.
- **Reinsurance program.** This temporary program limited issuer risk for enrollees with very high-cost claims between 2014 and 2016 by transferring funds collected from contributing entities, including issuers and group health plans, to issuers in the individual market that incur high cost claims for enrollees.

  Risk corridors program. This temporary program was designed to limit losses and profits of issuers offering QHPs from 2014 through 2016. Under the program, CMS collected amounts from issuers whose profits exceeded a certain threshold and used those funds to

[11]HHS discontinued cost-sharing reduction payments to issuers in October 2017 due to a lack of appropriations for these payments.

[12]See Pub. L. No. 111-148, §§ 1341-43, 10104(r), 124 Stat. 119, 208, 211-12, 906 (2010) (codified at 42 U.S.C. §§ 18061-63).

make payments to issuers whose losses exceeded a certain threshold.

Issuer requirements

PPACA imposed new federal requirements on issuers in the individual market, all of which took effect by January 1, 2014, including

- **Guaranteed issue.** Issuers must generally accept every applicant who applies for health coverage, as long as the applicant agrees to the terms and conditions of the insurance offer;
- **Guaranteed renewability.** Issuers must generally renew coverage at the option of the enrollee;
- **Coverage of preexisting conditions.** Issuers are prohibited from excluding coverage for pre-existing conditions; and
- **Rating restrictions.** Issuers can adjust premiums based only on certain factors, such as geographic area, age, and tobacco use, and amounts by which rates may vary is limited in certain circumstances.[13]

These requirements were in addition to earlier requirements related to MLRs. Specifically, as of 2011, PPACA requires issuers in the individual market to spend at least 80 percent of their premium revenue on medical claims and certain other non-claims costs such as quality improvement activities, known as the MLR requirement.[14] Issuers that do not meet this requirement are required to provide a rebate to their enrollees.

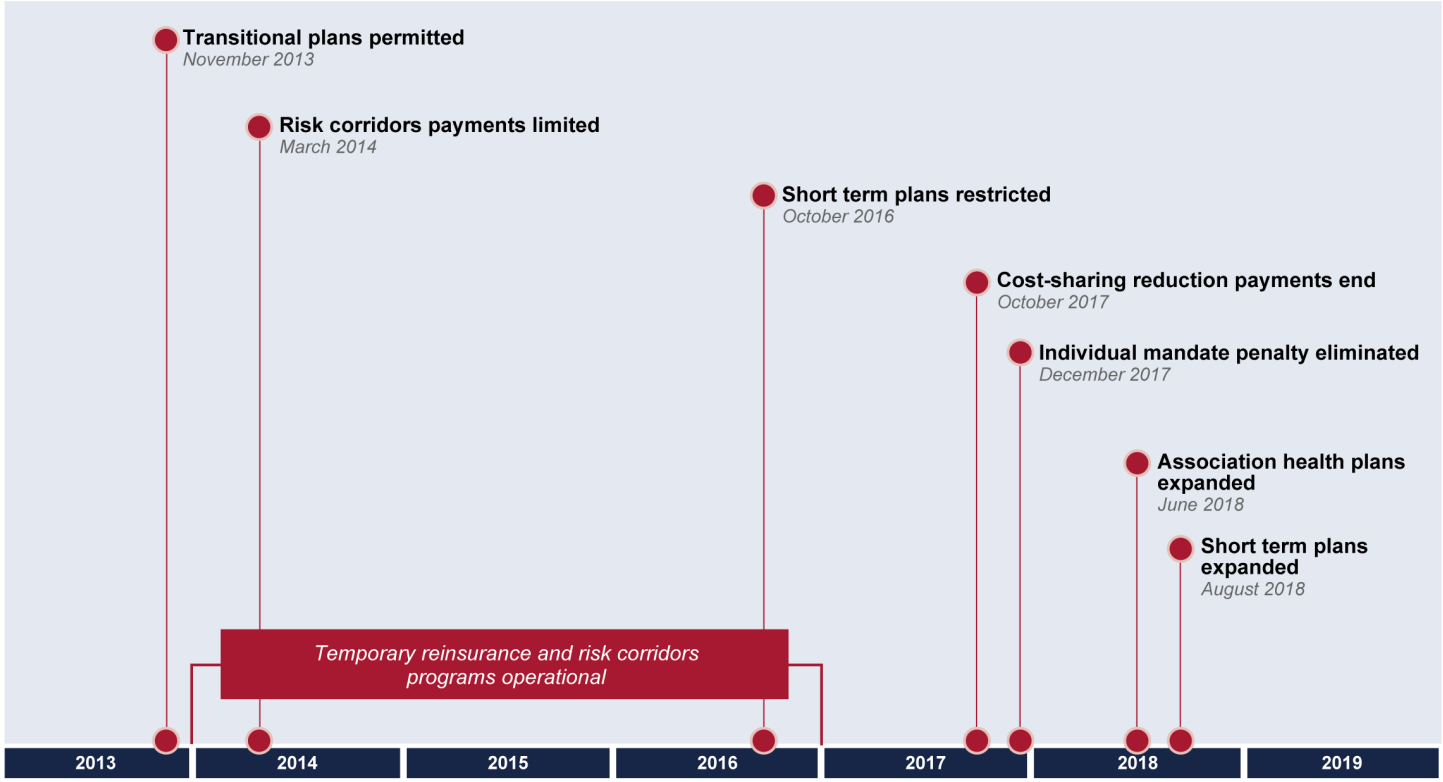
Other Federal Policies Affecting the Individual Market

Since the enactment of PPACA, additional federal policy changes have affected the individual market. See figure 1 for a timeline of several key changes.

[13]See generally Pub. L. No. 111-148 § 1201, 124 Stat. 119, 154 (2010). Certain of these requirements also apply to small and large group health plans.

[14]Pub. L. No. 111-148, § 10101(f), 124 Stat. 119, 885 (2010) (codified at 42 U.S.C. § 300gg-18).

Figure 1: Timeline of Selected Federal Policies Affecting the Individual Market, 2013 through 2018



Transitional plans permitted	CMS announced a transitional policy that, if permitted by the states, issuers may choose to continue certain coverage, referred to as transitional plans, that would otherwise be canceled because the plans were not compliant with the Patient Protection and Affordable Care Act.
Risk corridors payments limited	HHS issued a final rule stating that it would operate the program in a budget neutral manner. This policy would result in a reduced, prorated rate if collections for a particular year were insufficient to make full risk corridors payments for that year. In addition, legislation was later enacted that prohibited CMS from paying out more in risk corridors payments than it collected for fiscal years 2015 through 2017.
Short term plans restricted	HHS and the Departments of Labor and Treasury issued a final rule restricting coverage of short term plans to no longer than 3 months, effective January 1, 2017.
Cost-sharing reduction payments end	HHS announced the end of cost-sharing reduction payments to issuers due to a lack of appropriations, effective immediately.
Individual mandate penalty eliminated	Legislation was enacted, which eliminated the financial penalty for consumers who do not have health insurance beginning in 2019.
Association health plans expanded	The Department of Labor issued a final rule to expand the availability of these plans starting in September 2018.
Short term plans expanded	HHS and the Departments of Labor and Treasury issued a final rule allowing these plans to offer coverage for up to 364 days in a year starting October 2, 2018.

Source: GAO analysis of documents from the Centers for Medicare & Medicaid Services (CMS), Department of Health and Human Services (HHS), and Departments of Labor and Treasury as well as relevant laws and regulations. | GAO-19-215

State Policies Affecting the Individual Market

States are the primary regulators of health insurance, and each state has standards and regulations to oversee issuers that offer health insurance within the state. As such, state oversight of the individual market can vary. For example, some states, such as Florida, have enacted state laws allowing state regulators to approve or disapprove issuers' premium rate changes before they go into effect, while other states, such as California, have not.

States also vary in policies affecting the size and risk associated with the individual market. For example, as of September 2018, 33 states and the District of Columbia have expanded Medicaid—a joint federal-state program that finances health care coverage for certain categories of low-income and medically needy individuals—to cover adults that earn at or below 138 percent of the federal poverty level.[15] In states that did not expand Medicaid, individuals between 100 and 138 percent of the federal poverty level may be eligible for subsidized coverage through the exchange. Thus, when a state expands Medicaid, it changes the risk pool—a pool of consumers for which issuers' spread the risk of covering health care services—for the individual market. Other state policies also affect the size and risk associated with their respective individual markets. For example, Massachusetts enacted comprehensive health reform in 2006 that, among other changes, merged the individual and small group markets. Issuers that sell health plans to small businesses in Massachusetts must also make those plans available to individuals purchasing insurance in the individual market, and the risk pool for both markets is combined. Additionally, some states, including Minnesota, implemented state risk mitigation programs, such as reinsurance programs to help stabilize premiums.

[15]Under current law, states may opt to expand their Medicaid programs to cover nonelderly, nonpregnant adults who are not eligible for Medicare with incomes at or below 133 percent of the federal poverty level. 42 U.S.C. § 1396a(a)(10)(A)(i)(VIII). According to CMS guidance, no deadline exists for states to implement the Medicaid expansion. Current law also provides for a 5 percent disregard when calculating income for determining Medicaid eligibility, which effectively increases this income level to 138 percent of the federal poverty level. 42 U.S.C. § 1396a(e)(14)(I).

Claims Costs were Higher than Expected in Early Years of Exchanges; Selected Issuers' Experiences Varied Significantly

Multiple Factors Contributed to Higher than Expected Claims Costs in Initial Years of Exchanges

Studies we reviewed and interviews with selected issuers indicate that claims costs were generally higher than expected in the initial years of the exchanges, though the extent varied among issuers. Specifically, two studies we reviewed examined issuers' 2014 actual and projected per member per month claims costs for QHPs and found actual claims costs to be about 6 and 10 percent higher than projected.[16] In addition, one of these two studies found considerable variation in how much the projected per member per month claims costs differed from actual costs in 2014, ranging from an average difference of 4 percent for the quartile of issuers that had the lowest claims to an average difference of 35 percent for the quartile of issuers with the highest claims.[17] A third study that examined issuers' experiences in five states found that claims costs were substantially higher than issuers' expectations in 2014 and 2015, as evidenced by some issuers having claims that were 50 to over 100 percent greater than premiums in one state.[18] Similarly, three of our

[16]One of these studies found the average actual and projected per member per month costs to be $429 and $406, respectively, or a difference of about 6 percent. The other study found the median actual and projected per member per month costs to be $443 and $402, respectively, or a 10 percent difference. See, M.A. Hall and M.J. McCue. "How Has the Affordable Care Act Affected Health Insurers' Financial Performance?," *The Commonwealth Fund*, vol. 18 (2016); and M.J. McCue and J.R. Palazzolo, "Analysis of Actual Versus Projected Medical Claims Under the First Year of ACA-Mandated Coverage," *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, vol. 53 (2016).

[17]M.A. Hall and M.J. McCue. "How Has the Affordable Care Act Affected Health Insurers' Financial Performance?"

[18]The study also reported many issuers in that same state had claims costs that were nearly identical to premiums charged, thus leaving little revenue to cover administrative expenses. The study examined issuers' experiences in five states – California, Michigan, Florida, North Carolina, and Texas. M.A. Morrisey, A.M. Rivlin, R.P. Nathan, M.A. Hall, "Five-State Study of ACA Marketplace Competition: A Summary Report," *Risk Management and Insurance Review*, vol. 20, no. 2 (2017).

selected issuers told us claims costs were higher than projected from 2014 through 2016, and three selected issuers noted difficulties projecting claims costs in a new and changing market.[19]

Studies from our literature review and selected issuers attributed the difference in actual and projected claims costs in the initial years of the exchanges to issuers lacking historical data to support actuarial assumptions under the new market conditions, such as new requirements that prevented issuers from denying health care coverage or varying premiums based on health status. Studies indicated, and selected issuers told us, that these changes affected the morbidity of the risk pool, utilization of services, and the costs of services, in ways that were challenging to accurately estimate.

- **Morbidity of risk pool.** Four studies and five selected issuers indicated that consumers buying insurance on the individual market were sicker than expected. For example, one study examining enrollees in Blue Cross Blue Shield plans found that those who enrolled in 2014 and 2015 had higher rates of certain diseases, such as hypertension, diabetes, depression, human immunodeficiency virus, and Hepatitis C, than those who enrolled in the individual market prior to 2014.[20] Additionally, three selected issuers told us the numbers of enrollees with end stage renal disease were unexpectedly high.[21] In one selected state (Minnesota), two selected issuers noted that claims costs were higher than projected after a larger than expected share of the state's high risk pool, which offered coverage to individuals with pre-existing conditions unable to obtain affordable coverage in the individual market, unexpectedly enrolled in the exchange in 2014.
- **Utilization of services.** Two studies cited higher than expected utilization of services as a driver of the higher than expected claims

[19]Two selected issuers participating in Massachusetts also commented that claims costs were higher than expected when the state exchange in Massachusetts was established in 2006.

[20]Blue Cross Blue Shield Association and Blue Health Intelligence, *The Health of America Report, Newly Enrolled Members in the Individual Health Insurance Market After Health Care Reform: The Experience from 2014 and 2015* (March 2016).

[21]Regardless of age, most patients with end stage renal disease are covered by Medicare. Officials from one of these issuers noted that enrollees were directed to their plans by third party providers who procured higher reimbursement rates for their services from the issuers compared to Medicare.

costs, and three selected issuers cited it as well. For example, the study cited above also found that new enrollees utilized more hospital admissions, outpatient visits, emergency department visits, and prescriptions than those who were enrolled prior to 2014.[22] The second study reported differences in actual and projected utilization for outpatient visits and prescriptions in 2014 to be 40 percent and 10 percent, respectively, for issuers with QHPs. Inpatient stays were also 30 percent longer than expected, according to the study.[23] This study noted that the increased utilization could be the result of a sicker-than-expected risk pool or the "pent-up demand" associated with previously uninsured or underinsured enrollees seeking care shortly after enrolling in coverage. In addition, one selected issuer said utilization increased the longer consumers were enrolled and attributed the increase to pent-up consumer demand lasting longer than anticipated.

- **Medical and pharmaceutical costs.** One study and five selected issuers indicated increased claims costs were also driven by higher-than-expected costs for medical and pharmaceutical services. For example, one study found the costs per service for professional visits were 23 percent higher than expected in 2014, and prescription drug costs were 4 percent higher.[24] Additionally, one of our selected issuers cited out-of-network emergency room visits and mental health care costs as reasons claims costs were higher than projected. Another selected issuer said increases in the costs of specialty drugs increased claims costs.

Studies from our literature review and selected issuers identified federal policies that contributed to claims costs being higher than expected in the initial years of the exchanges.

- **Special enrollment periods.** Three studies and two selected issuers indicated the misuse of special enrollment periods contributed to higher than projected claims, and CMS took steps to minimize misuse

[22]Blue Cross Blue Shield Association and Blue Health Intelligence, *Newly Enrolled Members in the Individual Health Insurance Market After Health Care Reform*.

[23]M.J. McCue and J.R. Palazzolo, "Analysis of Actual Versus Projected Medical Claims." Additionally, another study also identified a 12 percent increase in the average number of hospital patient days per 1,000 enrollees in the individual market between 2013 and 2014. See, C. Cox, A. Semanskee, L. Levitt, *Individual Market Performance in 2017* (Washington, D.C.: Kaiser Family Foundation, 2018).

[24]M.J. McCue and J.R. Palazzolo, "Analysis of Actual Versus Projected Medical Claims."

in 2017.[25] Specifically, one study noted that short-term, urgent medical needs likely drove consumers to obtain coverage through special enrollment periods, more so than those who enrolled during the open enrollment period and continued coverage for part of the year.[26] Another study cited generous rules for special enrollment periods as allowing consumers to delay enrollment until they needed health care, and subsequently dropping health coverage after receiving treatment.[27] One selected issuer told us that individuals who obtain coverage through special enrollment periods negatively affected claims costs because they were enrolled for a shorter period of time compared to open enrollment enrollees, and had a high use of services.

- **Transitional Plans.** Three studies noted that the policy of allowing plans that were in existence prior to 2014, known as transitional plans, contributed to higher than projected claims in the initial years of the exchanges. According to one study, the decision to allow the continued purchase of transitional plans allowed healthy people to maintain their coverage and not purchase plans through the exchanges, thereby increasing average claims costs associated with QHPs in the initial years of the exchanges.[28] On a related note, one selected issuer said the timing of the decision to allow transitional plans to stay on the market was also detrimental because it was done after rates were already set for 2014, and so issuers had no ability to adjust rates for this sicker than expected risk pool.

[25]A special enrollment period is a period during which an individual who experiences certain qualifying events may enroll in, or change enrollment in a QHP outside of the annual open enrollment period. In 2016, GAO reported that relying on an enrollees' self-attestation without verifying documents to support a special enrollment period triggering event could allow applicants to obtain coverage for which they would otherwise not qualify. See, GAO, *Patient Protection and Affordable Care Act: Results of Enrollment Testing for the 2016 Special Enrollment Period*, GAO-17-78 (Washington, D.C.: Nov. 17, 2016). In 2017, CMS took steps to limit the misuse of special enrollment periods. In particular, the agency instituted a verification process to ensure eligible consumers were able to enroll in coverage through the special enrollment periods, rather than relying on self-attestation of a qualifying life event and the meeting of other eligibility criteria. CMS reports that these changes were implemented to improve the risk pool and stabilize the individual market. See, CMS, *The Exchanges Trends Report* (July 2018).

[26]S. Dorn, B. Garrett, M. Epstein, "New Risk-Adjustment Policies Reduce But Do Not Eliminate Special Enrollment Period Underpayment," *Health Affairs*, vol. 37, no. 2 (2018).

[27]M.A. Morrisey, A.M. Rivlin, R.P. Nathan, M.A. Hall, "Five-State Study of ACA Marketplace Competition."

[28]J. Hsu, "The ACA and Risk Pools—Insurer Losses in the Setting of NonCompliant Plans," *New England Journal of Medicine*, vol. 374, no. 22 (2016).

Factors affecting issuer profitability

Claims costs. The costs associated with enrollees' medical and pharmaceutical services make up the largest component of issuers' premiums.

Accurate pricing. If issuers fail to set premiums high enough to cover both claims and administrative costs, then issuers may have financial losses.

Federal risk mitigation programs. The amount of payments received under the three programs established under PPACA could affect issuer profitability.

Source: GAO and Congressional Research Service. | GAO-19-215

Given that claims costs were higher than expected, issuers' profitability was affected and they generally incurred losses in the early years of the exchanges. According to five studies from our literature review that assessed issuers' financial losses in the individual market, issuers collectively lost billions of dollars each year from 2014 through 2016. However, profitability varied across issuers. For example, one study reported that 30 percent of issuers nationally were profitable in 2014, and issuers with narrowed networks and managed plan design had lower losses than those with broad networks.[29] Profitability for our selected issuers also varied from 2014 through 2016, with at least three reporting that they were profitable in a selected state each year.

Despite early losses, issuers' financial performance generally improved in 2017 compared to prior years, according to our literature review and interviews with selected issuers. Two studies that examined trends in MLRs—which generally measure the proportion of premiums spent on medical claims—through 2017 found that MLRs for the individual market began to decline in 2016 and continued declining into 2017, suggesting improved financial performance for issuers.[30] We observed a similar pattern in individual market MLRs for selected issuers; however, there was considerable variation across issuers and years (see table 1). Selected issuers that provided MLR projections for 2018 and 2019 generally expected similar trends to 2017.

[29]McKinsey Center for U.S. Health System Reform, *Exchanges three years in: Market variations and factors affecting performance*" (McKinsey & Company, 2016).

[30]MLRs are calculated for all of an issuer's plans in the individual market, not just those that are offered through the exchange.

Table 1: Individual Market Medical Loss Ratios for Selected Issuers in Selected States, 2014-2017

Medical loss ratios measure the amount of premium revenue an issuer spends on certain expenses, such as an enrollee's medical claims. Issuers in the individual market are required to spend at least 80 percent of premium revenue on enrollees' medical expenses.

	2014	2015	2016	2017[a]
Issuers with MLRs less than 80 percent	4	3	1	2
Issuers with MLRs between 81 and 90 percent	3	4	6	6
Issuers with MLRs between 91 and 100 percent	2	3	4	1
Issuers with MLRs above 101 percent	3	2	1	0
Average MLR nationally[b]	98%	103%	96%	82%

Source: GAO analysis of data and documentation from selected issuers and the Centers for Medicare & Medicaid Services. I GAO-19-215

Notes: The data are for nine issuers participating in one or more of five selected states: California, Florida, Massachusetts, Minnesota, and Mississippi. To the extent that an issuer participated in more than one selected state, we included medical loss ratios (MLR) in each state rather than an average across states. Selected issuers indicated that reported MLRs generally followed the calculation for MLRs defined in PPACA and are for a single plan year.

[a]For 2017, the table includes only 9 issuer and state combinations because one issuer left the individual market in 2017 and another issuer did not provide data for this year.

[b]The average MLR nationally in the individual market comes from C. Cox, A. Semanskee, L. Levitt, *Individual Insurance Market Performance in 2017*, (Washington D.C.: Kaiser Family Foundation, 2018).

The literature we reviewed and selected issuers cited continued experience with the new market conditions and increased premiums as reasons for improved financial performance in 2017. Specifically, two selected issuers said 2017 was the first year that multiple years of claims data associated with the new market conditions were available to set premiums for the next year. Six studies and three selected issuers reported that premium increases, rather than decreases in claims costs, were the impetus for improved financial performance for issuers in 2017.[31]

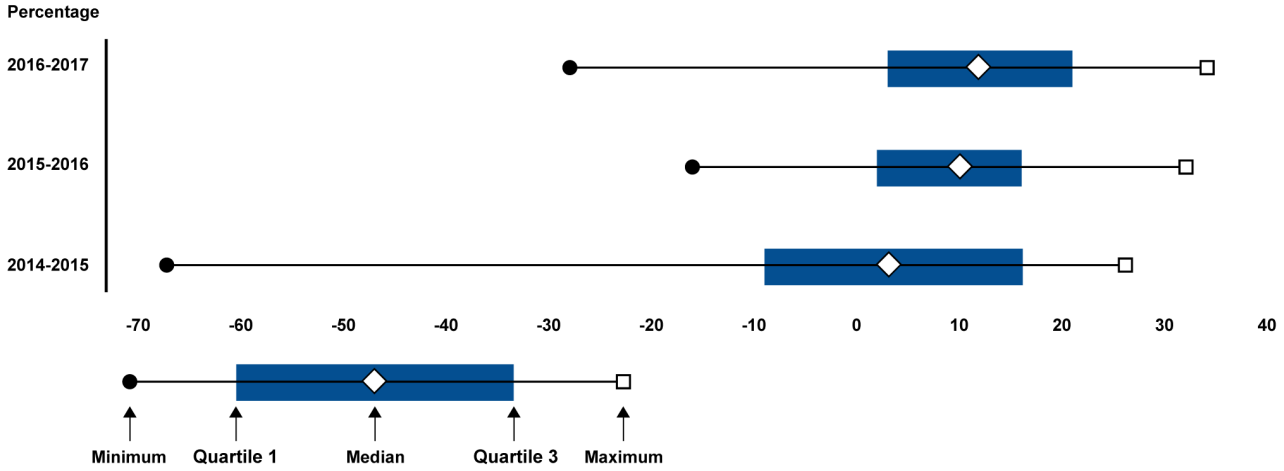
[31]One study noted that issuers may have set premiums artificially low in the early years of the exchanges (2014 through 2016) to attract enrollees. See M. Fiedler, *Taking Stock of Insurer Financial Performance in the Individual Health Insurance Market Through 2017*, (USC-Brookings Schaeffer Initiative for Health Policy, 2017).

Selected Issuers' Claims Costs Generally Increased Over Time and Varied Significantly within Selected States

Claims costs generally increased for our selected issuers between 2014 and 2017, though costs varied greatly by issuer and by year. For example, from 2014 to 2015, when growth in per member per month claims costs averaged 13 percent nationally, selected issuers' experienced changes in per member per month claims costs ranging from a decrease of 67 percent to an increase of 26 percent.[32] The level of variation narrowed for the next 2 years (see figure 2). Further, selected issuers experienced considerable swings in claims costs—both increases and decreases—year to year. For example, one issuer experienced a 13 percent increase in per member per month claims costs between 2015 and 2016, and a 28 percent decrease the next year, while another issuer experienced a 16 percent decrease between 2015 and 2016 and a 15 percent increase in the following year. For 2018 and 2019, projections from selected issuers indicate that per member per month claims costs will generally continue to increase.

[32]This national average is based on per member per month claims costs for issuers' with QHPs that may be purchased through the exchange. The article also reports claims costs increased an average of 7 percent per member per month between 2015 and 2016. See, M.J. McCue and M.A. Hall, *On the Road to Recovery: Health Insurers' 2016 Financial Performance in the Individual Market*, (Washington, D.C., The Commonwealth Fund: 2018). Another study estimating claims costs for issuers with QHPs reported between about 1 and 3 percent increases in per member per month claims costs each year between 2014 and 2017. See M. Fiedler, *Taking Stock of Insurer Financial Performance in the Individual Health Insurance Market Through 2017*.

Figure 2: Percent Change in Per Member Per Month Claims Costs for Individual Market Exchange Enrollees for Selected Issuers in Selected States, 2014 through 2017



Source: GAO analysis of data from selected issuers and the Centers for Medicare & Medicaid Services. | GAO-19-215

Notes: The data are for nine issuers participating in one or more of five selected states: California, Florida, Massachusetts, Minnesota, and Mississippi. To the extent that an issuer participated in more than one selected state, we included data on changes in costs for each state rather than an average across states. For years 2014 through 2017, the table includes 12 issuer state combinations.

Most selected issuers attributed the volatility in per member per month claims costs, in part, to changes in the number and health needs of enrollees from year to year. Specifically, all selected issuers had a greater than 50 percent increase or decrease in enrollment in at least one year between 2014 and 2017. Six selected issuers had enrollment increases of over 100 percent in at least one of these years. Such dramatic changes in enrollment can change the issuers' risk pool, potentially increasing claims costs beyond what was expected for medical and pharmaceutical services or even decreasing costs if the new enrollees are healthier than expected. Many issuers cited enrollee price sensitivities, changes in the participation and products of competitors, and state policy changes as factors affecting enrollment.

Per member per month claims costs also varied significantly across issuers participating in the same state. Data from our selected issuers in four selected states indicated that the difference in issuers' average claims costs within a given state was often well over $100 per member per month, a significant amount given that the median per member per month claims costs ranged from about $300 to $350 (see table 2). Additionally, it was not always the same issuer in each state that had the lowest or highest claims costs in each year.

Table 2: Differences in Selected Issuers' Per Member Per Month Claims Costs for Individual Market Exchange Enrollees in Selected States, 2014 through 2017

	Difference in dollars			
State	**2014**	**2015**	**2016**	**2017**
State A	221	165	198	228
State B	164	155	217	123
State C	74	149	237	89
State D	480	295	222	249

Source: GAO analysis of data from selected issuers. I GAO-19-215

Notes: The dollar amounts provided represent the difference between selected issuers with the highest and lowest per member per month claims costs in a given state. For each of the four states, there were between two and four issuers providing data. The states include California, Florida, Minnesota, and Mississippi. We did not include the fifth state—Massachusetts—because of data limitations.

Selected Issuers Attributed Changes in Exchange Participation, Premiums, and Plan Design to Claims Costs and Other Factors

Selected Issuers Cited Various Factors for Changes in Their Exchange Participation

Decisions to expand or contract participation in the individual market exchanges from 2014 to 2018 varied significantly among our nine selected issuers. Three selected issuers expanded their participation, three selected issuers contracted their participation, and three selected issuers had no changes in participation (see table 3). These changes ranged from expanding or contracting the number of counties in which a selected issuer participated in a selected state, to expanding into, or leaving, a state altogether. The experiences of our selected issuers from 2014 to 2018 are consistent with trends nationally in that the number of issuers participating in the exchanges generally declined, though the numbers of issuers participating varied widely by state and even by

county.[33] For example, while 8 issuers participated in Florida's exchange in 2014, only 4 issuers participated in 2018, with many counties only having 1 issuer. In contrast, California had 11 issuers participating in the state's exchange in 2014 and 2018, and most counties had 2 or more issuers offering plans on the exchange in 2018.[34]

Table 3: Change in Individual Market Exchange Participation for Selected Issuers in Selected States, 2014 and 2018

Participation status	Number of issuers	Examples of changes
Expanded	3	Centene expanded its presence in Florida from 3 to 22 counties; expanded in Mississippi from about half of all counties to offering coverage statewide; and moved into California through the acquisition of another issuer.
Contracted	3	Blue Cross Blue Shield of Minnesota participated statewide in 2014 but was not offering coverage in 10 of 87 counties by 2018. Humana offered coverage in certain areas of Florida and Mississippi in 2014. By 2018, the company no longer participated in either state and reported leaving the individual market in all states.
No Change	3	Florida Blue offered coverage statewide throughout these years. Neighborhood Health Plan participated in most counties in Massachusetts in 2014 and continued in the same counties in 2018.

Source: GAO analysis of data from the Kaiser Family Foundation and selected issuers, and other documents. | GAO-19-215

Note: These data represent changes in participation for nine selected issuers in the following states: California, Florida, Massachusetts, Minnesota, and Mississippi.

Selected issuers described various reasons for changes in exchange participation, including claims costs, the success of their pricing strategy, actions by competitors, state policies, and the level of funding through federal risk corridors program. Often, these issuers described a combination of those factors.[35]

[33]One study reported issuer participation dropped by less than a third in 2017 and about a quarter in 2018, and eight states had a single issuer participating in the exchange. See M. Hall, *Stabilizing and strengthening the individual health insurance market: A view from ten states*, (USC-Brookings Schaeffer Initiative for Health Policy, Washington, D.C., July 2018).

[34]A. Semanskee, C. Cox, G. Claxton, M. Long, R. Kamal, *Insurer Participation on ACA Marketplaces, 2014-2018*, (Washington, D.C., Kaiser Family Foundation, November 2017).

[35]One study noted that sustained financial losses through 2016 were the main reason issuers left the exchanges, while the ability to turn a profit is keeping issuers in the market in 2018 and potentially re-entering in 2019. See M. Hall, *Stabilizing and strengthening the individual health insurance market: A view from ten states*.

- **Expansion in multiple states.** Centene cited the company's accurate claims projections and pricing in 2014 and 2015 as the reason for its expansion into new counties and states. In particular, the issuer said it was reasonably conservative in setting rates in those years and focused on the low-income population that was eligible for subsidies. The company's understanding of the individual market has given it confidence to expand its business model into other states, according to the issuer, and the company acquired another issuer to expand its business into California in 2016.
- **Contraction in Minnesota.** Blue Cross Blue Shield of Minnesota told us that it contracted its operations because of a state law prohibiting issuers from canceling an enrollee's coverage, except under limited circumstances, as well as unexpectedly high claims costs.[36] As a result, issuers in the state were required to make existing health plans compliant with PPACA but rate increases on those plans were subject to state approval. The issuer said that in 2016 it became clear to the company that even with high rate increases, the company would not be able to continue in its current state because it lost over $500 million from 2014 through 2016 because claims costs were greater than their premium revenue. In order to stem the losses, the issuer said it closed down its entity that offered preferred provider organization plans throughout the whole state, and continued offering coverage through its other entity providing health maintenance organization plans in various counties in the state. Further, the issuer said that changes in the way in which the federal risk corridors program was funded, which limited risk corridors payments to issuers, also affected the company's decision to contract.[37]

[36]See Minn. Stat. § 62A.65 (2018). The limited circumstances for cancellation include non-payment of premiums, fraud, and misrepresentation. In January 2014, the Minnesota Department of Commerce issued a report examining the effect of the state's guaranteed renewability requirement on individual health insurance plans. It recommended the state allow time for PPACA provisions to be fully implemented before considering any modifications to this provision. See, Minnesota Department of Commerce, *Guaranteed Renewability Report on Minnesota*, (St. Paul, M.N., January 31, 2014).

[37]CMS originally indicated that the risk corridors program would not be operated in a budget neutral manner. In 2014, CMS announced it would operate the program in a budget neutral manner. In addition, legislation was enacted that prohibited CMS from paying out more in risk corridors payments than it collected for fiscal years 2015 through 2017. As a result, if risk corridors collections were insufficient to make risk corridors payments for a year, payments to eligible issuers would be reduced pro rata to the extent of any shortfall. For the risk corridors program's 3-year period, collections from profitable issuers fell short of the full amount of risk corridors payments due to unprofitable issuers.

- **Exit from exchanges.** Humana cited its pricing strategy as a factor contributing to the company contracting in selected states and ultimately leaving the individual market and all exchanges nationwide. Humana noted that it had the lowest or second lowest prices in many markets between 2014 and 2016, but over time, their prices became less competitive compared to other issuers. The issuer said sicker beneficiaries and broad provider networks led to higher costs, and as a result, Humana increased premiums. The issuer told us premium increases made the company's plans less attractive to enrollees.

Selected Issuers Attributed Premium Increases to Claims Growth and Reductions in Federal Funding

Consistent with national trends, selected issuers told us that they generally increased premiums from 2014 through 2018 and projected increases to continue in 2019.[38] The extent of increases varied across selected issuers and over time as indicated by the amount of premium dollars received per member per month, referred to as average premium received. For example, increases in average premium received were fairly small between 2014 and 2015 (ranging from 2 to 9 percent), and then became more widespread between 2015 and 2016 (ranging from 1 to 33 percent). This widespread variation continued in 2017, and was projected to continue through 2018.[39] Though less frequent, many issuers reported decreases in average premium received, which could reflect lower premium rates, members choosing lower-cost plans, or both. (See table 4.).

[38]The percent change in premium rates nationally were 3 percent between 2014 and 2015, 8 percent between 2015 and 2016, 24 percent between 2016 and 2017, and 37 percent between 2017 and 2018. These trends reflect changes in the rates for the plan used as the benchmark for determining federal assistance for coverage. The rates are based on a 27 year old purchasing coverage through the federally facilitated exchange. See HHS Office of the Assistant Secretary for Planning and Evaluation, *Health Plan Choice and Premiums in the 2018 Federal Health Insurance Exchange*, (October 30, 2017).

[39]A 2017 GAO report found that premium rates for the plan used as the benchmark for determining federal assistance for coverage were more likely to increase than decrease and generally increased more from 2016 to 2017 than from 2015 to 2016. GAO's analysis found that the median change across all counties included was 11 percent from 2015 to 2016 and 28 percent from 2016 to 2017. See GAO, *Health Insurance Exchanges: Changes in Benchmark Plans and Premiums and Effects of Automatic Re-enrollment on Consumers' Costs*, GAO-18-68 (Washington, D.C. Nov. 14, 2017).

Table 4: Percent Change in Per Member Per Month Premium Received by Selected Issuers for Individual Market Exchange Enrollees in Selected States, 2014-2018

	Number of issuers			
Percent change in premium received	**2014 to 2015**	**2015 to 2016**	**2016 to 2017**	**2017 to 2018[a]**
Less than 0%	5	5	0	1
0 to 10%	6	5	3	4
11 to 20%	1	1	3	0
21 to 30%	0	0	3	0
Greater than 30%	0	1	3	5

Source: GAO analysis of data from selected issuers and CMS. I GAO-19-215

Notes: The data are for nine selected issuers participating in at least one of five selected states: California, Florida, Massachusetts, Minnesota, and Mississippi. To the extent that an issuer participated in more than one of our selected states, we included data on changes in costs for each state rather than an average across states.

[a]The change from 2017 to 2018 is based on projections of premium revenue issuers expect to receive in 2018. The column includes only 10 issuer state combinations as one of the selected issuers left the exchanges in our selected states for 2018.

Selected issuers told us there were a variety of factors that drove premium increases between 2014 and 2018, including increasing claims costs and changes in federal funding. Increasing claims costs were cited by selected issuers and state officials in four selected states. However, most selected issuers also cited the availability of federal funding as a factor driving increases, particularly in 2017 and 2018, years in which many selected issuers reported significant increases—more than 20 percent—in per member per month premium revenue.

- **Phase out of federal reinsurance and risk corridors programs:** Two selected issuers told us that as these temporary programs were phased out in 2016 per PPACA, they raised premiums in 2017 to account for the loss of those payments.
- **End of cost-sharing reduction payments:** Three selected issuers told us the loss of cost-sharing reduction payments contributed to their premium increases in 2018.[40] Officials from two of these issuers reported that by 2017, better data allowed for more accurate pricing and more moderate rate increases. However, the end of federal cost-sharing reduction payments accounted for 20 percent of premium

[40]Issuers are required to reduce cost-sharing amounts for individuals eligible for cost-sharing reductions. To reimburse issuers for this reduced cost-sharing, HHS made payments to issuers until October 2017, when it discontinued these payments because of a lack of an appropriation for the payments.

increases in 2018, according to one issuer.[41] The same issuer noted that the enrollees most affected by these increases would be those not eligible for premium tax credits, and expected that some of those people would leave the market. Issuers we interviewed in one selected state (Minnesota) said they were less affected by this change, because most enrollees who were eligible for cost-sharing reduction payments did not purchase coverage through the exchange but instead received coverage through Medicaid or the state's basic health program.[42]

Several issuers told us state policies also affected premium increases, both minimizing and increasing the extent of increases. For example, the issuers cited state oversight in California and Minnesota as affecting the extent of any premium increases.

- **California.** The two selected issuers in California providing premium data had fewer significant price increases each year, compared to selected issuers across our other selected states. One attributed this to California's level of engagement. California's exchange, Covered California, determines which issuers will be allowed to offer plans on the exchange through a competitive process and has standardized benefits across certain plans offered through the exchange.
- **Minnesota.** Two selected issuers in Minnesota told us state policies were a factor in premium increases. One issuer cited the state's guaranteed renewability law, which the issuer said made it difficult to

[41]In July 2018, GAO reported that premiums across all plans offered on the federally-facilitated exchange increased an average of about 30 percent, with the elimination of cost-sharing reduction payments being a driver. The report noted that decreased affordability of plans likely resulted in lower enrollment in exchange plans for consumers that were not eligible for advance premium tax credits. See, GAO, *Health Insurance Exchanges: HHS Should Enhance Its Management of Open Enrollment Performance*, GAO-18-565 (Washington D.C., July 24, 2018).

[42]The Basic Health Program is an alternative to QHPs under which states may offer subsidized coverage to certain low-income, non-elderly individuals who are otherwise not eligible for other types of coverage, but may purchase coverage through the exchange. Minnesota's program became effective in January 2015 and covers consumers with household incomes over 133 through 200 percent of the federal poverty level.

State officials noted that, while issuers in the individual market were largely shielded from the loss of cost-sharing reduction payments, the state was severely affected by this loss of funding, which provided a portion of funding for its Basic Health Program. In August 2018, CMS paid Minnesota an additional amount to operate its Basic Health Program as a result of a lawsuit the state filed after CMS reduced Basic Health Program payments due to the termination of cost-sharing subsidies.

cancel or modify plans, as a significant factor for increased premiums in 2015 and 2016. However, both issuers cited the adoption of a state reinsurance program as a factor in reducing premium increases or driving premium reductions in 2018.[43]

Selected issuers and stakeholders anticipated that changes in federal and state policies would continue to affect premium increases in 2019 and beyond.

- **Elimination of individual mandate penalty.** Five issuers and stakeholders noted that the elimination of the individual mandate penalty could affect premiums moving forward. A report by the Congressional Budget Office noted that the full effect of this change would not be observable in 2019, the first year in which the penalty will no longer be in effect, but instead in 2020 and beyond, once issuers have data on the extent to which it affected the risk pool.[44] According to state officials in Massachusetts, the elimination of the federal individual mandate penalty is unlikely to affect premiums, because the state has its own penalty.[45]
- **Rule changes for short-term and association health plans.** The federal government has also issued two new rules that seven selected issuers and seven stakeholders anticipate will affect premiums going forward. Specifically, three selected issuers expect that new rules increasing the availability of short-term health plans could result in

[43]Section 1332 of PPACA permits states to apply for a State Innovation Waiver to waive specified PPACA requirements related to, among other things, the maintenance of insurance coverage for individuals, exchange functions, and subsidies for exchange coverage. In 2017, Minnesota enacted a law to establish a state-based reinsurance program designed to stabilize premiums in the individual market by partially reimbursing issuers for high-cost claims, and authorized funding for years 2018 and 2019. In September 2017, HHS and the Department of Treasury approved Minnesota's waiver allowing the state to use federal funds to cover a significant portion of the funding for the reinsurance program. Other states have also received approval for 1332 waivers for reinsurance programs as of August 2018, including Alaska, Maine, Maryland, New Jersey, Oregon, and Wisconsin.

[44]The report also found that the number of uninsured consumers is expected to rise by 3 million between 2018 and 2019 primarily as a result of the elimination of the federal penalty and the higher premiums associated with that change. Congressional Budget Office, *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2018*, (May 2018).

[45]As of September 2018, several states, including New Jersey, Vermont, and the District of Columbia, have enacted similar legislation requiring the purchase of insurance in either 2019 or 2020.

healthier consumers choosing those plans over QHPs.[46] Such a move could increase the morbidity of the risk pool in the individual market and lead to increased premiums. Six selected issuers and five stakeholders cited similar concerns with new rules expanding the availability of association health plans that are exempt from many of PPACA's reforms.[47] As with the elimination of the individual mandate penalty, state policies may limit the effect of these policy changes. For example, California prohibited the sale of short-term plans effective January 2019.[48] Officials from Massachusetts noted that its state laws around guaranteed issue and renewability and rating rules work as a disincentive for issuers to offer short term plans.

[46]Short-term plans, or short-term, limited-duration insurance is a type of health insurance coverage that is designed to fill temporary gaps in coverage when an individual is transitioning from one plan or coverage to another plan or coverage and are not subject to many of PPACA's market reforms, such as the requirement to cover essential health benefits. In August 2018, the Departments of HHS, Labor, and Treasury issued a final rule to expand the availability of these plans from limiting coverage to 3 months to allowing coverage up to 12 months at a time, beginning on October 2, 2018. See 83 Fed. Reg. 38,212 (Aug. 3, 2018).

[47]Association health plans are a type of health insurance offered through business associations and other entities to jointly offer health insurance and other fringe benefits to their members or employees. In June 2018, the Department of Labor issued a final rule to broaden the types of association health plans that are regulated as group insurance and, therefore, are not subject to certain PPACA reforms, such as the requirement to offer essential health benefits, beginning September 1, 2018. See 83 Fed. Reg. 28,912 (June 21, 2018).

The Congressional Budget Office estimated that beginning in 2023, approximately 5 million people will enroll in either association or short-term health plans under the recently-issued association health plan and short-term plan rules. The office estimates the effect of these enrollees, who tend to be healthier, enrolling in association health plans and short-term plans instead of the individual market, will be to raise premiums 2 to 3 percent in the individual market. Congressional Budget Office, *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2018*.

[48]In California, short-term plans are generally those with a duration of less than one year.

Federal Requirements Limited Changes to Benefits for Selected Issuers, but Competition and Claims Costs Drove Changes in Cost-Sharing and Provider Networks

All of the selected issuers told us they made no significant changes to the benefits covered under their plans due to essential health benefit requirements under federal law, and in some cases state requirements. In particular, selected issuers participating in California's exchange noted the state further requires issuers to ensure that plans have the same benefit designs, including cost-sharing.[49] California officials noted that this requirement allows consumers to make their plan choice based on provider network and premiums alone, and not benefits.

However, seven selected issuers described making adjustments to benefits in states where they had the flexibility to do so. These included changes to cost-sharing for specific services and to pharmaceutical coverage, both of which could affect members' costs and access to the care.[50] For example, three selected issuers participating in Florida increased deductibles or cost-sharing for specialty drugs and emergency room visits. (See table 5.) Regarding changes to pharmaceutical coverage, two selected issuers told us they added additional coverage tiers, which can increase consumer costs for certain drugs, or narrowed their formulary and pharmacy network to help mitigate rising claims costs.

[49]The standardization applies to all plans within a certain actuarial value, known as a metal tier. For example, all plans in the silver metal tier have the same benefit design, including cost-sharing, regardless of what issuer offers the plan.

[50]PPACA limits the amount of annual cost-sharing that enrollees may incur in their coverage. Pub. L. No. 111-148, 124 Stat. 165 (2010). In 2014, the maximum annual limit on cost-sharing was $6,350 for an individual and $12,700 for a family. In 2018, the maximum annual limitation on cost-sharing was $7,350 for individual coverage and $14,700 for family coverage.

Table 5: Illustration of Cost-Sharing for Selected Services and Issuers in Florida, 2014 and 2018

	Deductibles ($)		Cost-sharing for specialty drugs		Cost-sharing for emergency room visits	
Issuer	**2014 or first year in market**	**2018 or last year in market**	**2014 or first year in market**	**2018 or last year in market**	**2014 or first year in market**	**2018 or last year in market**
Centene	6,500	5,500	no charge*	20% coinsurance*	no charge*	20% coinsurance*
Florida Blue	5,750	6,050	$150 copay	50% coinsurance*	10% coinsurance*	$650 copay*
Humana	4,600	3,550	50% coinsurance*	50% coinsurance*	20% coinsurance*	$600 copay before deductible
Molina	1,700	4,950	30% coinsurance	50% coinsurance*	$250 copay	$400 copay*

Source: GAO analysis of data from the Centers for Medicare & Medicaid services. I GAO-19-215

Note: These data represent plans with the same actuarial value available in Miami-Dade County for each of our selected issuers. Benefits marked with an * indicate that the co-pay or coinsurance is after the deductible is paid.

Several selected issuers noted that changes in cost-sharing for specific services were made to be consistent with competing issuers or to incentivize enrollees to use preventive services. In particular, two issuers said they did not want to be outliers in the market when compared to other issuers participating in the exchanges in their state. One issuer told us some of the cost-sharing changes were made to incentivize the use of preventative and routine services and to avoid enrollees using unnecessary emergency services.

With regard to provider networks, selected issuers varied in the extent to which they reported changes and the reasons for those changes. Specifically, three selected issuers reported narrowing provider networks, and one reported adding plans with a narrow network. Other selected issuers reported no substantive changes to provider networks, or expanding provider networks as they expanded their participation into new counties and states. Interviews with officials from selected states also indicated that issuers varied in their approach to provider networks for exchange plans. For example, Massachusetts officials told us that, although issuers in their state have historically had relatively robust networks, certain issuers were moving to offering products with more limited networks. Minnesota officials also told us that issuers were narrowing provider networks. In contrast, officials in Mississippi told us that in their annual reviews of issuers' networks against network

adequacy standards, they have not observed narrowing of provider networks.[51]

Interviews with stakeholders and findings from two studies we reviewed also indicate that some issuers have narrowed provider networks for exchange coverage over time. For example, one study examining competition in five states noted that issuers' in those states have begun to offer narrow networks for the plans offered on the exchanges.[52] This study found that in the initial years of PPACA, many issuers offered preferred provider organization plans, which tend to have broader provider networks than health maintenance organization plans; however, by 2016, issuers reduced the number of preferred provider organization plans available and some issuers only offered health maintenance organization plans.

Selected issuers who told us they narrowed provider networks or added plans with a narrow network said they did so to reduce and better manage claims costs and to price plans competitively to other issuers.[53] According to one study and interviews with stakeholders and officials from selected states, the narrowing of provider networks is one of the primary ways issuers can manage claims costs, which works by issuers channeling enrollees to fewer providers and negotiating lower prices in return.[54] The study, however, also noted the narrowing of provider networks may also work to lower claims because sicker enrollees are incentivized to seek coverage from other issuers where their specialists or hospitals are covered. Further, a stakeholder and one selected issuer told us the ability to manage providers, such as through ensuring accurate coding of an enrollee's diagnosis or treatment, is a key component in benefiting from federal risk adjustment payments as issuers only receive

[51]However, state officials told us that there are multiple rural hospitals that have closed or are at risk of closing in the state and that is raising significant network adequacy concerns.

[52]M.A. Morrisey, A.M. Rivlin, R.P. Nathan, M.A. Hall, "Five State Study of ACA Marketplace Competition."

[53]One study suggested issuers with narrower networks performed better in the individual market in 2014 through 2016, as issuers that had plans with health maintenance organization networks had lower financial losses in the aggregate than issuers with plans based on preferred provider organizations in 2014, and lower premiums increases in 2015 and 2016. See McKinsey Center for U.S. Health System Reform, *Exchanges three years in: Market variations and factors affecting performance*.

[54]See, M.A. Morrisey, A.M. Rivlin, R.P. Nathan, M.A. Hall, "Five State Study of ACA Marketplace Competition."

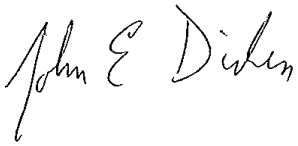
credit for an enrollee's risk if it is documented.[55] Thus, issuers may forfeit risk adjustment payments if providers do not accurately record such information.

Agency Comments

We provided a draft of this report to the Department of Health and Human Services for review and comment. The department provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Secretary of the Department of Health and Human Services, appropriate congressional committees, as well as other interested parties. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If your staff have any questions about this report, please contact me at (202) 512-7114 or dickenj@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.



John E. Dicken
Director, Health Care

[55]CMS officials noted that CMS also validates risk adjustment data in states where HHS operates the risk adjustment program to ensure that issuers are providing accurate data.

List of Committees

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House of Representatives

The Honorable Richard Neal
Chairman
The Honorable Kevin Brady
Ranking Member
Committee on Ways and Means
House of Representatives

Appendix I: List of Relevant Studies Identified in Literature Review

Blase, B., D. Badger, E.F. Haislmaier, and S.J. Chandler. *Mercatus Working Paper: Affordable Care Act Turmoil: Large Losses in the Individual Market Portend an Uncertain Future*. Arlington, Va.: Mercatus Center at George Mason University, June 2016.

Blue Cross Blue Shield Association and Blue Health Intelligence. *Newly Enrolled Members in the Individual Health Insurance Market after Health Care Reform: The Experience from 2014 and 2015*. Chicago, Ill.: Blue Cross Blue Shield Association, March 2016.

Clemans-Cope, L., and M. Karpman. *Changes in Claims, Premiums, and Medical Loss Ratios Across and Within States' Individual Markets Between 2010 and 2014*. Robert Wood Johnson Foundation and Urban Institute, October 2015.

Cox. C., A. Semanskee, and L. Levitt. *Individual Insurance Market Performance in 2017.* Washington, D.C.: Kaiser Family Foundation, May 2018.

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Dorn, S., B. Garrett, and M. Epstein. "New Risk-Adjustment Policies Reduce But Do Not Eliminate Special Enrollment Period Underpayment." *Health Affairs*, vol. 37, no. 2 (2018): 308-315.

Fiedler, M. *Taking Stock of Insurer Financial Performance in the Individual Health Insurance Market Through 2017*. USC-Brookings Schaeffer Initiative for Health Policy, October 2017.

Giesa, K, and P. Kaczmarek. *Stabilizing the Individual Health Insurance Market.* Milwaukee, Wis.: Oliver Wyman, August 2017.

Hall, M. *Stabilizing and strengthening the individual health insurance market: A view from ten states.* USC-Brookings Schaeffer Initiative for Health Policy, July 2018.

Hall, M.A., and M.J. McCue. *How Has the Affordable Care Act Affected Health Insurers' Financial Performance?* New York, New York: The Commonwealth Fund, July 2016.

Hall, M.A., M.J. McCue, and J.R. Palazzolo. *"Financial Performance of Health Insurers: State-Run Versus Federal-Run Exchanges."* Medical Care Research and Review, vol. 75, no. 3 (2018): 384-393.

Herman, B. "How some Blues made the ACA work while others failed," *Modern Healthcare*, vol. 46, no. 42 (2016).

Houchens, P.R., J.A. Clarkson, J.P. Melek. *Commercial health insurance: Overview of 2016 financial results and emerging enrollment and premium data.* Milliman, May 2018.

Houchens, P.R., J.A. Clarkson, J.S. Herbold, and Z.J. Fohl. *2015 commercial health insurance: Overview of financial results.* Milliman, March 2017.

Hsu, J. "The ACA and Risk Pools – Insurer Losses in the Setting of Noncompliant Plans." *The New England Journal of Medicine*, vol. 374, no. 22 (2016): 2105-2107.

Jacobs, P.D., M.L. Cohen, and P. Keenan. "Risk Adjustment, Reinsurance Improved Financial Outcomes for Individual Market Insurers with The Highest Claims." *Health Affairs*, vol. 36 no. 4 (2017): 755-763.

Mark Farrah Associates. *An Analysis of Individual and Small Group Health Insurance Trends.* Mark Farrah Associates, June 2017.

McCue, M.J., and J.R. Pallazzolo. "Analysis of Actual Versus Projected Medical Claims Under the First Year of ACA-Mandated Coverage."INQUIRY: The Journal of Health Care Organization, Provision, and Financing, vol. 53 (2016): 1-5.

McCue, M.J., and M.A. Hall. *Comparing Individual Health Coverage On and Off the Affordable Care Act's Insurance Exchanges.* New York, New York: The Commonwealth Fund, August 2015.

McCue, M.J., and M.A. Hall. *How Have Health Insurers Performed Financially Under the ACA's Market Rules?* New York, New York: The Commonwealth Fund, October 2017.

McCue, M.J., and M.A. Hall. *On the Road to Recovery: Health Insurers' 2016 Financial Performance in the Individual Market.* New York, New York: The Commonwealth Fund, March 2018.

McCue, M.J., and M.A. Hall. *Promoting Value for Consumers: Comparing Individual Health Insurance Markets Inside and Outside the ACA's Exchanges.* New York, New York: The Commonwealth Fund, June 2016.

McKinsey Center for U.S. Health System Reform. *2016 individual market losses are in high single digits - a slight improvement from 2015.* McKinsey & Company, June 2017.

McKinsey Center for U.S. Health System Reform, *Exchanges three years in: Market variations and factors affecting performance.* McKinsey & Company, May 2016.

Morrisey, M.A., A.M. Rivlin, R.P. Nathan, and M.A. Hall. "Five-State Study of ACA Marketplace Competition: A Summary Report." *Risk Management and Insurance Review*, vol. 20, no. 2 (2017): 153-172.

S&P Global Market Intelligence. *The U.S. ACA Individual Market Showed Progress in 2016, But Still Needs Time to Mature.* New York, New York: S&P Global Inc., April 2017.

Appendix II: Information about the Individual Market and State Policies in Selected States

California	**Type of exchange:** State-based exchange **Number of issuers participating in the exchange:** Two to seven in any given county in 2016, and one to six in any given county in 2018. **Size of market:** 2.4 million covered life-years in the individual market in 2016, with 1.3 million enrolling through the exchange. **Key state policies identified by selected issuers, state officials, or stakeholders as affecting the individual market:** • California's exchange has standardized benefits across certain plans offered on the exchange, including cost-sharing requirements. State law provides that if the exchange standardized benefits, then issuers must offer those standardized benefits in plans sold through and outside the exchanges. • State uses a competitive process to selectively contract with exchange issuers. • State expanded Medicaid eligibility to include nonelderly adults with incomes up to 138 percent of the federal poverty level. • State law prohibits the sale of short term plans (plans that extend for less than one year) effective January 2019.
Florida	**Type of exchange:** Federally facilitated exchange **Number of issuers participating in the exchange:** Two to six in any given county in 2016, and one to three in any given county in 2018. **Size of market:** 1.9 million covered life-years in the individual market in 2016, with 1.3 million enrolling through the exchange. **Key state policies identified by selected issuers, state officials, or stakeholders as affecting the individual market:** • State allows the sale of transitional plans.
Massachusetts	**Type of exchange:** State-based exchange **Number of issuers participating in the exchange:** Six to 10 in any given county in 2016, and four to seven in any given county in 2018. **Size of market:** About 313,000 covered lives in the individual market in 2016, with about 311,000 enrolling through the exchange. **Key state policies identified by selected issuers, state officials, or stakeholders as affecting the individual market:** • State law established an exchange and subsidized coverage for consumers in 2006, prior to the enactment of the Patient Protection and Affordable Care Act. • State expanded Medicaid eligibility to include nonelderly adults with incomes up to 138 percent of the federal poverty level. • State subsidizes coverage for individuals with incomes up to 300 percent of the federal poverty level in addition to the federal subsidies. • State has an individual mandate that generally requires individuals over the age of 18 in the state to obtain health coverage or pay a penalty. • State merged the individual and small group markets.

Minnesota	**Type of exchange:** State-based exchange **Number of issuers participating in the exchange:** Two to four in any given county in 2016, and one to four in any given county in 2018. **Size of market:** About 261,000 covered life-years in the individual market in 2016, with about 66,000 enrolling through the exchange. **Key state policies identified by selected issuers, state officials, or stakeholders as affecting the individual market:** • State expanded Medicaid eligibility to include nonelderly adults with incomes up to 138 percent of the federal poverty level. • State operates a Basic Health Program, which covers individuals with incomes above 133 percent to 200 percent of the federal poverty level. • State law prohibits issuers from canceling an enrollee's coverage in most circumstances. • State provided a one-time 25 percent premium discount in 2017 for all individual market enrollees who were not otherwise eligible for assistance through premium tax credits or cost-sharing reductions. • State received approval for a 1332 waiver in 2017 that establishes a state reinsurance program to assist issuers' with high cost claims starting in 2018.
Mississippi	**Type of exchange:** Federally facilitated exchange **Number of issuers participating in the exchange:** Two to three in any given county in 2016, and one in any given county in 2018. **Size of market:** About 138,000 covered life-years in the individual market in 2016, with about 65,000 enrolling through the exchange. **Key state policies identified by selected issuers, state officials, or stakeholders as affecting the individual market:** • State allows the sale of transitional plans.

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services, states officials, the Kaiser Family Foundation; and state laws and regulations. I GAO-19-215

Notes: Covered life-years represent the average number of lives insured, including dependents, on a pre-specified day of each month over the 12 months in the reporting year. Covered lives represent the total number of lives insured as of the last day of the reporting year.

Key policies in each state were identified through interviews with nine selected issuers participating in the exchanges in one or more of these states, state officials, and stakeholders. The policies listed are not a comprehensive list of all policies that may affect the individual market in these states.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

John E. Dicken, (202) 512-7114, dickenj@gao.gov

Staff Acknowledgments

In addition to the contact named above, Susan Barnidge (Assistant Director), Rebecca Hendrickson (Analyst-in-Charge), Reed Meyer, and Robert Dougherty made key contributions to this report. Also contributing were Sam Amrhein, Muriel Brown, Sarah Gilliland, Emei Li, and Jenny Rudisill.

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Congressional Budget Office

How CBO and JCT Analyzed Coverage Effects of New Rules for Association Health Plans and Short-Term Plans

JANUARY 2019

Notes

This analysis was conducted in August 2018 using projections of federal revenues and spending for fiscal years 2019 through 2028. Estimates of health insurance coverage reflect average monthly enrollment during a calendar year and include spouses and dependents covered under family policies. Those estimates are for the noninstitutionalized civilian population under age 65.

Numbers in the text, tables, and figure may not sum to totals because of rounding.

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How CBO and JCT Analyzed Coverage Effects of New Rules for Association Health Plans and Short-Term Plans

Summary

During the summer of 2018, the Administration issued final rules governing coverage offered through association health plans (AHPs) and short-term, limited-duration insurance. (AHPs are legal arrangements that allow associations or unrelated employers to jointly offer fringe benefits to members or employees.) The rules were designed to increase enrollment in such plans, which may be sold in the small-group and nongroup insurance markets. AHPs and short-term plans are exempt from many of the regulations that govern other insurance offerings in those markets.

This report describes how the Congressional Budget Office and the staff of the Joint Committee on Taxation (JCT) analyzed the new rules and determined how those rules would affect the agencies' projections of the number of people who obtain health insurance and the costs of federal subsidies for that coverage. It also provides details about the projected effects.

CBO and JCT's current findings are similar to those from an analysis of the two rules as they were proposed. Those findings were published in a report on federal subsidies for insurance coverage that CBO released with its spring 2018 baseline.[1]

The agencies' two main findings from the current analysis are as follows:

- Each year over the next decade, roughly 5 million more people are projected to be enrolled in AHPs or short-term plans as a result of the two rules. Almost 80 percent are people who would otherwise have purchased coverage in the small-group or nongroup markets. The remaining 20 percent (roughly 1 million people) are projected to be newly insured as a result of the rules.

- Once the two rules take full effect, premiums for coverage in the fully regulated small-group and nongroup markets are projected to be roughly 3 percent higher than they would have been without the rules. In 2028, for example, such an increase would raise average annual premiums by roughly $350 to $400 for single coverage and by $900 to $950 for family coverage. Premiums for fully regulated coverage are projected to rise because people who continue to purchase coverage in the fully regulated markets are expected to have higher average health care costs than those who purchase AHPs or short-term plans. Because federal subsidies defray some of the higher costs, CBO and JCT do not expect that premium increase to spur a noticeable decline in insurance coverage.

What Are the New Rules?

In June 2018, the Administration published a final rule that modified the definition of "employer" under title I of the Employee Retirement Income Security Act, or ERISA. In August, it published a final rule to amend the definition of "short-term, limited-duration insurance."[2]

1. See Congressional Budget Office, *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2028* (May 2018), pp. 10–11, www.cbo.gov/publication/53826.

2. See Definition of "Employer" Under Section 3(5) of ERISA—Association Health Plans, 83 Fed. Reg. 28912 (June 21, 2018), https://go.usa.gov/xPf4M; and Short-Term, Limited-Duration Insurance, 83 Fed. Reg. 38212 (August 3, 2018), https://go.usa.gov/xEcKs.

Association Health Plans

The first rule makes it easier for business associations and other entities to offer health insurance through AHPs. Although such coverage existed before that rule was issued, the rule established a new, less restrictive pathway for groups to form associations that offer plans, and it broadened the definition of "small employer" to include self-employed people.[3]

The rule also specifies that AHPs formed under the new pathway would be regulated as though they offered large-group coverage—rather than nongroup or small-group coverage—regardless of the size of member businesses. (Large-group coverage is generally for businesses with more than 50 employees; small-group coverage is for businesses with 50 employees or fewer. Nongroup coverage is purchased directly by an individual from an insurer or through a health insurance marketplace rather than through an employer.) Although large-group coverage is subject to federal and state regulations, it is exempt from some requirements that are specific to the nongroup and small-group markets, notably the following:

- Insurance plans must cover what are termed essential health benefits—that is, 10 categories of health care services that federal law defines as essential; and
- Within a given geographic region, premiums must be community rated—they may vary only within a predefined range and only on the basis of age and tobacco use.

All other factors being equal, coverage of essential health benefits increases the financial protection associated with health insurance by increasing the scope of coverage but also the cost of premiums. Community rating makes it easier for people who are older or less healthy to afford health insurance, but it tends to lead to higher premiums for people who are younger and healthier.

Short-Term, Limited-Duration Insurance

The new rule for short-term plans extends their maximum duration from three months to 364 days and allows people to renew their policies for up to three years. Federal law exempts short-term plans from compliance with most regulations that govern nongroup coverage, including those that require coverage of essential health benefits and community rating but also guaranteed issue—the requirement that insurers offer policies to all applicants regardless of health status. Guaranteed issue makes it easier for people with preexisting conditions to gain access to health insurance, but it leads to higher premiums for other people.

Similarities Between AHPs and Short-Term Plans Offered Under the New Rules

Because coverage sold under either of the two new rules need not comply with all of the requirements governing the nongroup and small-group markets, CBO and JCT expect that, on average, premiums for coverage under both types of plans will cost less than premiums for coverage in the fully regulated nongroup and small-group markets. That is particularly the case for the new types of coverage that will be available for younger and healthier people.

Differences Between AHPs and Short-Term Plans Offered Under the New Rules

Although the two new types of coverage share some features, there are important distinctions concerning the types of plans that insurers may offer and the characteristics of people who might purchase those plans.

Availability and Pricing. For AHPs, premiums may reflect the expected health care spending of each association, but insurers cannot refuse coverage to association members. For short-term plans, insurers may charge premiums that reflect the expected health care spending for individual applicants and may refuse to cover people with high expected health care spending or preexisting conditions.

Scope of Benefits. Although neither type of plan must cover all essential health benefits, AHPs tend to cover most of them. Short-term plans, however, are more likely to exclude many of those benefits and often exclude coverage for preexisting conditions. On the basis of

3. The rule retained the original pathway for groups to form associations and offer AHPs but created a new pathway that has less stringent requirements for the "commonality of interest" test for associations. In particular, groups of employers are considered to meet that requirement if they share an industry (real estate, law, or hospitality, for example) or are based in the same geographic area. Under the original pathway, employer groups must have both attributes in common. AHPs formed under the new pathway will operate under a different set of regulations. For example, unlike AHPs formed under the original pathway, they will not be able to vary premiums on the basis of health status for each member of the association. For more information, see Fritz Busch and Jason Karcher, *Association Health Plans After the Final Rule* (Milliman, August 2018), http://tinyurl.com/y7nmfoyv.

interviews with insurers and other stakeholders, CBO and JCT expect that most of the new short-term plans will provide coverage that is more similar to AHP coverage than it is to coverage in short-term plans that predate the new rule but that, overall, AHPs will continue to provide broader coverage than short-term plans.

Eligibility. To be eligible to purchase AHP coverage, one must either work for a small employer that offers AHP coverage or be self-employed and a member of an association that sponsors an AHP. No similar requirements apply to purchasers of short-term plans.

How Does CBO's Baseline Reflect Administrative Actions?

CBO's baseline budget and economic projections are constructed to reflect an assumption that current laws governing taxes and spending would generally remain in place during the current fiscal year and for the ensuing 10 years. The baseline projections are not intended to predict budgetary outcomes; rather, they reflect the agency's best assessment about how the economy and the federal budget would evolve under existing laws. The baseline serves as a neutral benchmark against which Members of Congress can measure the budgetary effects of proposed legislation.

Each year, CBO provides the Congress with updated baseline projections of federal revenues, spending, and the resulting deficits. It adjusts those projections throughout the year to account for enacted legislation and for other changes in law, including new regulations that are issued between formal baseline updates.

Those projections include the costs of federal subsidies for health insurance, which reflect CBO's estimates of the number of people with various types of coverage. The agency uses that coverage baseline to estimate the effects of proposed legislation on people's sources of health insurance and on the number of people who would be without insurance.

The new rules for AHPs and short-term plans had been proposed but were not yet final in May 2018, when CBO last reported on federal subsidies for insurance coverage.[4] In keeping with CBO's practices for estimating the effects of proposed rules, those projections incorporated an assumption reflecting a 50 percent chance that the final rules would be the same as those proposed and a 50 percent chance that no rules like those proposed would be issued. A final rule, once issued, becomes CBO's basis for estimating the effects of legislation. After the two rules were made final, CBO incorporated 100 percent of the estimated effects of each into its baseline projections.

The final rules were similar to the proposed rules. The most significant difference that affected CBO and JCT's estimate was that both rules were implemented earlier than the agencies had assumed for their spring estimates. The earlier implementation dates would—in isolation—have increased CBO and JCT's estimates of enrollment in AHPs and short-term plans. However, several states enacted laws that prohibited the sale of short-term plans or required short-term plans to comply with all regulations that govern the nongroup health insurance market. Those laws are expected to reduce enrollment in short-term plans. As a result, CBO and JCT estimate that enrollment in AHPs and short-term plans under the final rules will be similar to the estimated enrollment described in CBO's May 2018 report on federal subsidies for health insurance coverage.

How Did CBO and JCT Approach the Analysis?

To estimate the effects of the new rules for AHPs and short-term plans, CBO and JCT analyzed the incremental increase in coverage in both types of plans that will result from the rules (rather than assessing total enrollment in those plans, which were available before the final regulations were issued). The agencies followed several steps in completing their analysis, beginning with a comparison of estimated premiums for the new plans with those for the lowest-cost insurance otherwise available to individuals and small employers.

Then, CBO and JCT adjusted that comparison to reflect any differences in the portion of medical expenses paid by the insurer (often called a plan's actuarial value) and the scope of services covered.[5] Although a premium for a new plan might be as much as 90 percent below the

4. See Congressional Budget Office, *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2028* (May 2018), pp. 10–11, www.cbo.gov/publication/53826.

5. CBO and JCT estimated actuarial values on the basis of data from existing AHPs and short-term plans and after accounting for information gathered in interviews with insurers and other stakeholders about how the AHPs and short-term plans offered as a result of the rules would compare with existing products.

premium of the lowest-priced plan currently available to someone with low expected health care spending, a new plan need not offer comparable benefits. (For many people, the premium amount for a new plan could be higher than their existing premium. Moreover, insurers can deny coverage in the new plans to an applicant or association with particularly high expected health care costs.)

The estimated average differences in premiums also reflect the expected health care spending for purchasers of AHPs and short-term plans. CBO and JCT used CBO's health insurance simulation model to estimate potential purchasers' expected health care costs under the new types of AHPs and short-term plans and to project those costs relative to costs for other people with small-group and nongroup coverage.[6] On the basis of that analysis and other research, CBO and JCT projected that roughly 40 percent of people either would prefer fully regulated coverage to that offered by AHPs or short-term plans or would have health conditions that might prompt insurers to deny them coverage under a new plan. The remaining 60 percent of people would be candidates for coverage offered under the new rules.

Potential purchasers are people who have no preexisting condition that would cause an insurer to deny them coverage entirely, those without a preexisting condition that requires continuing treatment that might not be covered under the new types of plans, and those who do not expect to use essential health benefits that are covered under fully regulated health plans but not under the new types of AHPs and short-term plans.

After identifying potential purchasers, CBO and JCT estimated a measure known as elasticity: the percentage change in the number of people who would choose different health coverage in response to a 1 percent change in a premium. In this case, elasticity is used to arrive at an estimate of how readily someone would respond to the availability of lower-priced insurance. In general, CBO and JCT expect that lower premiums are more likely to attract people and employers who already purchase coverage than they are to convince a person or employer to purchase coverage for the first time. That is, the estimated elasticity is higher among people and employers currently in the insurance market. That expectation reflects both a thorough review of the literature and interviews with insurers and other stakeholders about what types of people and employers would be most likely to take up the new types of coverage offered under the two rules. (Specific elasticities, the research involved, and the basis for other key inputs to the estimate are discussed below in "What Key Technical Inputs Did CBO and JCT Use?")

CBO and JCT estimated the effects of the two rules jointly because each provides an alternative way for people to purchase coverage that does not comply with the regulations governing other insurance sold in the nongroup and small-group markets. For many self-employed people, AHPs and short-term plans can be seen as substitutes for one another: If one type of plan is not available, people can instead purchase the other.[7] CBO and JCT expect that if there had been no rule increasing the availability of short-term plans, more people would enroll in an AHP offered by their employer. In developing the estimates, CBO interviewed national and regional insurers, policy and legal experts, people who work for industry associations, and state insurance regulators.

Association Health Plans

CBO and JCT began by estimating premiums for the new AHPs and comparing those estimates with estimates of premiums for coverage currently sold in the small-group market.[8] On the basis of their analysis of existing

6. For more information about CBO's current health insurance simulation model, see Congressional Budget Office, "The Health Insurance Simulation Model Used in Preparing CBO's 2018 Baseline" (presentation, February 2018), www.cbo.gov/publication/53592. CBO will use an updated version of that model to develop the agency's spring 2019 projections and subsequent cost estimates. For more information, see Jessica Banthin and Alex Minicozzi, "Updating CBO's Health Insurance Simulation Model (HISIM)" (presentation at the Bipartisan Policy Center, Washington D.C., June 19, 2018), www.cbo.gov/publication/54063.

7. Because people who do not work for small employers and are not self-employed can purchase short-term plans but not AHPs, their choice of coverage is affected only by the rule on short-term plans.

8. Although some self-employed people may purchase coverage through AHPs as a result of the rule, others may purchase short-term plans. CBO and JCT expect that such people will compare the AHP and short-term plan premiums with premiums for fully regulated nongroup coverage. CBO and JCT therefore modeled the decisions of self-employed people as a choice to move from fully regulated nongroup coverage into either AHP or short-term plan coverage.

premiums and as a result of interviews with insurers and other stakeholders, CBO and JCT estimate that premiums for AHPs sold under the new rules will be, on average, roughly 30 percent lower than premiums for fully regulated small-group coverage.

That difference reflects two considerations: First, AHPs need not cover all essential health benefits, and second, AHPs are permitted to set premiums on the basis of each association's expected or actual health care spending rather than at the community level. CBO and JCT estimate that the majority of the difference in premiums will stem from lower expected health care spending for AHP enrollees and not from differences in the scope of coverage. Indeed, CBO and JCT expect that the coverage provided by the newly offered AHPs will be similar to that under AHPs sold before the new rule, many of which need not cover all of the essential health benefits but still offer coverage that is similar to comprehensive employment-based coverage. According to insurers and other stakeholders, although AHPs may exclude some benefits that are required in the nongroup and small-group markets, they sometimes offer wider provider networks or lower deductibles than are available through other types of nongroup and small-group coverage. CBO and JCT expect that, on balance, the scope of benefits offered by AHPs will be somewhat narrower than the scope of benefits offered by other plans in the small-group market.

The primary factor driving lower premiums for AHPs is the ability to price premiums on the basis of each association's expected health care spending and thereby attract employers with relatively low-risk employees and avoid those with higher-risk employees. In the existing nongroup and small-group markets, insurers must use community rating to set premiums that reflect average costs across all enrollees within the markets. By offering coverage outside of those markets, AHPs can selectively cover people with lower expected health care costs and thus offer lower premiums.

Because expected health care costs for people who purchase the newly created AHPs are likely be lower than those of the average small-group enrollee, CBO and JCT anticipate that the departure of such people from the regulated small-group market will result in an increase of roughly 3 percent for premiums among the plans offered by the remaining employers. However, because premiums for AHPs will be lower than premiums small employers are currently paying, premiums for the small-group market as a whole are projected to decline as a result of the rule.

Short-Term Plans

To estimate enrollment in newly offered short-term plans, CBO and JCT compared expected premiums with the lowest premiums available in the fully regulated nongroup market. That analytical choice reflects an assumption that people who are expected to purchase a short-term plan would compare the premium for that plan with the lowest-cost alternative otherwise available (including any premium tax credits).[9] For most people who have nongroup coverage or are uninsured, the lowest-cost premium for available coverage generally corresponds to that for a bronze health plan (for which the insurer pays, on average, 60 percent of covered expenses).[10]

The difference in premiums between short-term plans and plans sold in the fully regulated nongroup market occurs because short-term plans are not required to cover all essential health benefits, insurers can price premiums on the basis of an individual's expected health care spending, and short-term plans are permitted to exclude coverage of preexisting conditions or to refuse to provide or renew a plan for someone who uses costly health care services. That ability to exclude people with higher expected health care costs is a significant contributor to the lower premiums charged by short-term plans. Because people who purchase the newly created short-term plans will have lower average health care costs than other nongroup enrollees, CBO and JCT estimate that their departure from the regulated nongroup market will raise premiums for the rest of that market by roughly 3 percent.

The difference between premiums for short-term plans and for the lowest-cost option available through the marketplaces depends on the applicant's characteristics, including age, health status, and income. Net premiums

9. Under current law, tax credits are available to defray the cost of premiums for people whose income is generally between 100 percent and 400 percent of the federal poverty guidelines (the federal poverty level) who have no other affordable source of health insurance.

10. In most marketplaces, people can choose a plan on the basis of its actuarial value. On average, bronze, silver, and gold plans pay about 60 percent, 70 percent, and 80 percent, respectively, of covered expenses.

(premiums paid after accounting for federal subsidies for health insurance) for the lowest-cost plan available in the marketplaces vary significantly depending on the size of the premium tax credit purchasers are eligible to receive. For example, some people can obtain bronze plans while paying a negligible net premium even though their total or gross premium might be significantly higher. CBO and JCT estimate that premiums for plans newly offered as a result of the short-term rule also will vary significantly because insurers will set premiums on the basis of a person's health status and in some cases will deny coverage to an applicant. As a result, premiums for short-term plans will be less than premiums for the lowest-cost marketplace plan for some people and higher for others.

On the basis of interviews with insurers and other stakeholders, CBO and JCT expect that a range of new short-term insurance products will be sold as a result of the new rule. For this estimate, CBO and JCT modeled two categories: traditional short-term plans (TSPs) and insured short-term plans (ISPs).

TSPs would be similar to the short-term plans that were available before August 2018 but would provide coverage for up to 364 days rather than for three months. The terms of such plans vary widely, but most offer limited benefits and cover only a fixed amount for large expenses, such as inpatient hospital care. TSPs do not cover high-cost, low-probability events and therefore do not meet CBO's definition of private health insurance.[11] Estimating the actuarial value of such products is challenging because the scope of coverage is so varied and because coverage generally completely excludes services for any preexisting condition. CBO and JCT estimate that uninsured people with low expected health care costs who are ineligible for premium tax credits may be able to enroll in a TSP with premiums that are as much as 90 percent below those of the lowest-cost bronze plan available through a nongroup marketplace. However, many people who are eligible for premium tax credits or who are older or have higher expected health care spending would probably pay more for a TSP than for the lowest-cost bronze plan.

11. CBO broadly defines private health insurance coverage as a comprehensive major medical policy that, at a minimum, covers high-cost medical events and various services, including those provided by physicians and hospitals. See Congressional Budget Office, *How CBO Defines and Estimates Health Insurance Coverage for People Under Age 65* (May 2018), www.cbo.gov/publication/53822.

CBO and JCT project that ISPs, unlike TSPs, will offer financial protection against high-cost, low-probability events. ISPs thus meet CBO's definition of insurance. CBO and JCT expect that ISPs will resemble a typical nongroup insurance plan offered before 2014, when many federal regulations—for example, those governing essential health benefits and guaranteed issue—took effect. Although ISPs may exclude some benefits that other nongroup plans must cover, they may have lower deductibles or wider provider networks than plans in the fully regulated nongroup market. Premiums for ISPs will vary with individuals' health characteristics but may be as much as 60 percent lower than premiums for the lowest-cost bronze plan for people with low expected health care costs who are ineligible for premium tax credits.

How Are the New Rules Expected to Change Coverage?

CBO and JCT estimated the number of people who would newly enroll either in an AHP or in a short-term plan as a result of the two final rules. The estimates account for increased enrollment resulting from the two rules but not for total enrollment in AHPs or short-term plans. The agencies' analysis was confined to the effects of the rules and did not account for other recent administrative actions that could change the types of health insurance available to individuals or to employers.[12]

CBO and JCT anticipate that roughly 5 million more people will be enrolled in an AHP or a short-term plan each year over the next decade as a result of the new rules (see Table 1). Of that group, roughly 3 million would otherwise have been insured in the small-group market, 1 million would have had insurance through the nongroup market, and 1 million would have been uninsured. Almost three-quarters of the 5 million people who change coverage will purchase an AHP, CBO and JCT estimate, and the rest will purchase a short-term plan.

12. In particular, CBO and JCT did not consider the effects of the proposed rule on health reimbursement arrangements because their analysis was conducted in August 2018 before the notice of proposed rulemaking was published. See Health Reimbursement Arrangements and Other Account-Based Group Health Plans, 83 Fed. Reg. 54420 (October 29, 2018), https://go.usa.gov/xP6tC. Similarly, the agencies did not account for the October 2018 guidance issued to states on waivers under section 1332 of the Affordable Care Act; see State Relief and Empowerment Waivers, 83 Fed. Reg. 53575 (October 24, 2018), https://go.usa.gov/xPz5Z.

Table 1.

Projected Average Annual Enrollment With and Without the New Rules for AHPs and Short-Term Plans, 2019 to 2028

	Without the New Rules[a] (Millions of people)	With the New Rules: Coverage Status Changes[b] (Millions of people)	With the New Rules: Coverage Status Changes[b] (Percent)	With the New Rules: Coverage Status Stays the Same (Millions of people)
Uninsured	35.2	1.1	3	34.1
Insured in the Small-Group Market	23.2	3.1	13	20.1
Insured in the Nongroup Market With a Premium Tax Credit	6.9	0.2	3	6.7
Insured in the Nongroup Market Without a Premium Tax Credit	5.2	0.7	12	4.6
Total	**70.5**	**5.1**	**7**	**65.5**

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

AHP = association health plan.

a. The four categories are the groups that CBO and JCT identified as potentially affected by the new rules for AHPs and short-term plans. The numbers of people are CBO and JCT's coverage projections before accounting for any likely effects of the new rules.

b. CBO and JCT expect that some short-term plans will not cover high-cost, low-probability events and therefore will not meet CBO's definition of private health insurance. For more information, see Congressional Budget Office, *How CBO Defines and Estimates Health Insurance Coverage for People Under Age 65* (May 2018), www.cbo.gov/publication/53822.

Those movements represent a small share of the total number of people in each category. Specifically, CBO and JCT expect that of the people who would otherwise be uninsured altogether or who would be insured and receiving a premium tax credit for nongroup coverage, fewer than 5 percent will change their coverage status. The agencies anticipate that among people who would otherwise be insured in the nongroup market without a premium tax credit or who would otherwise be insured in the small-group market, fewer than 15 percent will switch to a new type of coverage. Those findings are consistent with estimates provided by other organizations (see below, "How Do CBO and JCT's Estimates Compare With Other Analyses?").

Movement From the Small-Group Market

The largest estimated change occurs for people who would otherwise be insured in the small-group market and who will move into a new AHP (see Figure 1). CBO and JCT estimate that, on average, roughly 3 million people who would have had small-group coverage in the regulated market will instead have AHP coverage under that rule (see Table 2). That group is the largest of those projected to change their coverage status, primarily because the small-group market is roughly twice the size of the nongroup market. Furthermore, enrollment in AHPs is expected to be higher among employers that already offer coverage than it is among employers that do not.

Movement From the Nongroup Market

The estimated movement among people with nongroup coverage is smaller in part because subsidies are available for nongroup coverage as long as that coverage is purchased through the marketplaces. People whose income is generally between 100 percent and 400 percent of the federal poverty guidelines (also called the federal poverty level, or FPL) are eligible for tax credits that reduce the price of the premium on the basis of income if they purchase nongroup coverage through a marketplace. Such individuals represented almost 60 percent of all people with nongroup coverage in 2018, CBO and JCT estimate. Those credits provide the most extensive subsidies to lower-income recipients and to recipients who are older and have higher premiums; they decrease as income rises and as premiums decrease.

Because of the credits, CBO and JCT estimate, net premiums for TSPs and ISPs generally will be higher than those for bronze plans for people whose income is below 300 percent of the FPL. CBO and JCT therefore expect that people with income below 300 percent of the FPL will be unlikely to purchase short-term plans.

Figure 1.

Estimated Average Annual Enrollment of People Who Are Projected to Change Their Insurance Coverage Because of the New Rules for AHPs and Short-Term Plans, 2019 to 2028

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

The estimated 5.1 million people whose coverage will be affected by the new rules represent less than 10 percent of people who otherwise would be uninsured or would be insured through the small-group or nongroup market.

TSPs do not cover high-cost, low-probability events and therefore do not meet CBO's definition of private health insurance. For more information, see Congressional Budget Office, *How CBO Defines and Estimates Health Insurance Coverage for People Under Age 65* (May 2018), www.cbo.gov/publication/53822.

AHP = association health plan; ISP = insured short-term plan; TSP = traditional short-term plan.

Even for people whose income is between 300 percent and 400 percent of the FPL, CBO and JCT expect, bronze plans generally would be less costly than any short-term plan. Although most people who receive premium tax credits will pay less for a bronze health plan than for a short-term plan, CBO and JCT estimate that some young people with very low expected health care spending might pay less for a short-term plan and, therefore, switch coverage. The agencies estimate that in an average year, fewer than 50,000 people who would otherwise have purchased nongroup coverage with a tax credit will instead enroll in a short-term plan.

Effects are anticipated to be larger among people whose income is too high to receive subsidies: CBO and JCT estimate that roughly 600,000 people who would otherwise have purchased nongroup coverage without a premium tax credit (about 10 percent of that population) will enroll in a short-term plan. The agencies also estimate that 95 percent of people moving from fully regulated nongroup coverage into short-term plans will purchase ISPs and that the remaining 5 percent will purchase TSPs. (Because TSPs are not expected to cover high-cost, low-probability events and therefore do not meet CBO's definition of private health insurance, people moving from the nongroup market into TSPs would be considered uninsured.)

Several factors led CBO and JCT to anticipate that most new enrollment in short-term plans will be in ISPs rather than TSPs. First, interviews with insurers and other stakeholders suggested that most people would prefer more comprehensive insurance coverage to TSPs, and many insurers indicated a preference for offering more substantial coverage. In addition, enrollment data for the nongroup market as a whole that predate 2014

(when many of the regulations governing nongroup insurance coverage took effect) suggest that the number of people who purchased coverage resembling ISPs was far greater than the number purchasing coverage that resembled TSPs.

New Short-Term Coverage Among Previously Uninsured People

CBO and JCT also expect a small number of currently uninsured people to purchase short-term plans. That group includes younger and healthier people who are not eligible for premium tax credits. They are likely to see short-term plans with premiums that are significantly lower than the lowest-cost option available through the fully regulated nongroup market. CBO and JCT estimate that roughly 600,000 people will gain insurance coverage by purchasing ISPs as a result of the short-term-plan rule. Only about 100,000 people will purchase TSPs and thus, in CBO and JCT's projections of health insurance coverage, will remain uninsured.

New Offers of Coverage by Employers

CBO and JCT expect that a small number of employers who otherwise would not have offered coverage will start offering AHP coverage to their employees. The agencies estimate that, on average, 400,000 people will have new AHP coverage who otherwise would be uninsured over the 2019–2028 period. (A smaller number who would have been insured in the nongroup market would be expected to receive an employment-based offer of AHP coverage.) Although most people will probably accept the newly offered employment-based coverage, CBO and JCT estimate that roughly 5 percent will decline (see the section on key technical inputs).

Eligibility for the premium tax credits for nongroup coverage purchased through the marketplaces is conditional on not having an affordable offer of insurance through an employer. As a result of those new affordable offers of AHP coverage (which would meet CBO's definition of insurance), CBO and JCT estimate that a very small number of people will receive but decline an affordable AHP offer, which will cause them to lose eligibility for the premium tax credits and to become uninsured.

What Are the Greatest Sources of Uncertainty in the Estimates?

CBO and JCT's estimates of the effects of the AHP and short-term-plan rules aim to represent the middle of an extremely broad range of possible outcomes. The projections are inherently uncertain in large part because of legal and administrative questions. There is considerable uncertainty regarding the Administration's implementation and enforcement of the new rules—for example, the AHP rule includes language suggesting that the Administration might preempt state laws that limit the new rule's effects. To the extent that the Administration challenges state laws, such actions might affect the availability of various types of insurance coverage. Furthermore, both rules are facing court challenges.[13]

Some questions about how insurers, states, employers, individuals, and other affected parties will respond to the new rules cannot be answered definitively. Considerable change has occurred in the nongroup and small-group markets in recent years; the market fluctuations caused by mergers and by the entry and exit of insurers, for

Table 2.

Estimated Average Annual Enrollment of People Who Are Projected to Change Their Insurance Coverage Because of the New Rules for AHPs and Short-Term Plans, 2019 to 2028

Millions of People

Coverage Status	Without the New Rules	Coverage Status With the New Rules		
		AHP	TSP	ISP
Uninsured	1.1	0.4	0.1	0.6
Insured in the Small-Group Market	3.1	3.1	*	*
Insured in the Nongroup Market	0.9	0.2	*	0.6
Total	**5.1**	**3.7**	**0.2**	**1.2**

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

The estimated 5.1 million people whose coverage will be affected by the new rules represent less than 10 percent of people who otherwise would be uninsured or would be insured through the small-group or nongroup market.

TSPs do not cover high-cost, low-probability events and therefore do not meet CBO's definition of private health insurance. For more information, see Congressional Budget Office, *How CBO Defines and Estimates Health Insurance Coverage for People Under Age 65* (May 2018), www.cbo.gov/publication/53822.

AHP = association health plan; ISP = insured short-term plan; TSP = traditional short-term plan; * = between zero and 49,000 people.

13. See *New York v. Department of Labor*, No. 18-1747 (D.D.C. filed July 26, 2018); and *Association for Community Affiliated Plans v. Department of the Treasury*, No. 18-2133 (D.D.C. filed September 24, 2018).

Table 3.

Estimates of Annual Enrollment in AHPs and Short-Term Plans Resulting From the New Rules for AHPs and Short-Term Plans

Millions of Enrollees

Published Source	Year	Enrollment
AHPs		
Avalere Health, 2018	2022	2.4 to 4.3
CBO and JCT	**2022**	**4.6**
Short-Term Plans		
Rao, Nowak, and Eibner, 2018	Not specified	Negligible to 5[a]
Wakely Consulting Group, 2018	After 4 years	1.1 to 1.9[b]
Federal Register, 2018	2028	1.4
CBO and JCT	**2028**	**1.6**
Center for Health and Economy, 2018	2028	3.2
Blumberg, Buettgens, and Wang, 2018a, b	2019	4.3[a]

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

AHP = association health plan.

a. Includes the effects of repealing the requirement for individuals to have insurance.

b. Includes only the number of people leaving the nongroup market.

example, make forecasting people's responses more tenuous than might be possible under more stable conditions.

Although CBO and JCT interviewed a wide range of stakeholders about how people might respond to the two rules, the new types of AHPs and short-term plans that insurers will actually offer—and the premiums that they charge—may differ considerably from those that CBO and JCT have modeled. Different plan offerings or pricing would affect enrollment in the new plans, the characteristics of the enrollees those plans attract, and the resulting effects on the fully regulated small-group and nongroup markets.

States also will react in ways that could affect the types of plans offered and their enrollments. Some states have taken regulatory actions to block the rules from taking effect. When the rule on short-term plans was first proposed, three states—Massachusetts, New Jersey, and New York—already had rules banning such short-term plans, and other states had policies that limited the initial or total contract duration of short-term plans. Between publication of the proposed and the final rules, more states acted to prohibit or limit the sale of short-term coverage. CBO and JCT's current estimates reflect state governments' policies in place as of September 2018 (see the section on key technical inputs).

At the time that CBO and JCT conducted the analysis, other states were considering actions that might strengthen the effect of the proposed rules. For example, New Hampshire was evaluating how to amend state law to better conform to federal law and to ease the burden on insurers and associations offering new AHPs. Because some states were considering legislation that would enhance the effects of the final rules and other states were considering legislation that would dampen such effects, for this analysis, CBO and JCT did not attempt to project state actions into the future.

Finally, states could create other mechanisms for people to purchase coverage that is exempt from the regulations on small-group and nongroup markets. Iowa, for example, has enacted legislation authorizing the sale of "health benefit plans" through its Farm Bureau. Because the state does not define those plans as insurance, they need not comply with the federal or state regulations for nongroup and small-group coverage. CBO and JCT expect that the availability of such state-specific products will reduce enrollment in AHPs and short-term plans but will nevertheless increase enrollment outside of the fully regulated markets.

How Do CBO and JCT's Estimates Compare With Other Analyses?

CBO and JCT's assessment of the effects of the rules concerning AHPs and short-term plans is in line with other published analyses, although comparing results is difficult because the policy scenarios evaluated are different. (Those sources are listed in this report's selected bibliography.)[14] In particular, CBO and JCT found only one study, Covered California (2018), that analyzed the effects of both rules jointly. As a further complication, several studies of the rule for short-term plans presented combined findings for the effects of that rule and for repealing the requirement for individuals to have insurance.

Table 3 and Table 4 compare CBO and JCT's estimates of the effects of the rules after full implementation with

14. For another analysis of the various estimates of short-term plans, see Pope (2018) in the selected bibliography.

the estimates of other organizations. CBO and JCT's estimates, shown in those tables, are larger than the enrollment numbers presented earlier in this report because those earlier numbers are 10-year averages, which encompass several years during which the effects of the rules will be phased in. CBO and JCT expect that the markets will respond to the rules over several years and that the effects of both rules will be fully evident by 2022.

CBO and JCT's estimates of enrollment in the new types of plans are similar to those of other organizations. For example, CBO and JCT estimate that, in 2022, roughly 4.6 million people will newly enroll in AHPs and that, in 2028, roughly 1.6 million people will newly enroll in short-term plans as the result of the rules (see Table 3). Although CBO and JCT's estimate of enrollment in AHPs in 2022 is slightly above the range of the other comparable estimate, the agencies' estimate of enrollment in short-term plans is within the broad range of estimates by other organizations.

The agencies' estimates of premium increases in the nongroup market also are similar to those of other organizations, which range up to 9 percent (see Table 4). As of December 2018, CBO and JCT had found no analyses of the effects of the rules on premiums in the fully regulated small-group market.

Table 4.

Estimates of Premium Increases in the Fully Regulated Nongroup Market Resulting From the New Rules for AHPs and Short-Term Plans

Percentage Increase

Published Source	Year	Premium Increase
AHPs and Short-Term Plans		
Covered California, 2018	2021	1.3 to 5.4
CBO and JCT	**2028**[a]	**3**
AHPs		
Corlette, Hammerquist, and Nakahata, 2018	Not specified	1.4 to 4.4
Avalere Health, 2018	2022	3.5
Short-Term Plans		
Rao, Nowak, and Eibner, 2018	Not specified	Negligible to 3.6[b]
Wakely Consulting Group, 2018	After 4 years	2.2 to 6.6
Federal Register, 2018	2028	5
Center for Health and Economy, 2018	2028	1 to 9

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

AHP = association health plan.

a. CBO and JCT estimate that in 2021, premiums for nongroup coverage sold in the fully regulated markets would be 2 percent higher as a result of the two rules. However, the effects of both rules will not be fully evident until 2022.

b. Includes the effects of repealing the requirement for individuals to have insurance.

What Key Technical Inputs Did CBO and JCT Use?

CBO and JCT developed several key technical inputs for the model that serves as this report's foundation. The agencies relied on research from various sources—listed in the selected bibliography—in developing and applying those inputs to estimate various populations' responses to new health insurance options (see Table 5).

Elasticities for Small Employers and for Individuals in the Nongroup Market

In economic research, price elasticity is a summary measure of the extent to which purchasing decisions are influenced by changes in price. CBO and JCT considered two inputs: purchase elasticity and cross-price elasticity.[15] Purchase elasticity measures changes in employers' and individuals' decisions to purchase coverage (either on behalf of employees or as individuals) in response to changes in premiums. Cross-price elasticity measures how readily people will switch between sources of insurance coverage in response to changes in premiums.

Research suggests that cross-price elasticities are much larger than purchase elasticities: That is, people respond to price changes by switching between plans more readily once they have decided that insurance coverage is something they want. (Although employers and individuals alike tend to view their current insurance as the default, the literature and interviews with insurers and stakeholders suggest that even with that tendency to renew coverage, cross-price elasticities are larger. This may be particularly true in the nongroup and small-group markets, which have been changing rapidly in recent years.)

15. In the economic literature, elasticities are often referred to as being on the extensive margin (whether to purchase or not) or the intensive margin (the amount to purchase). This report refers to the extensive margin as purchase elasticity.

Table 5.

CBO and JCT's Use of Technical Inputs to Estimate the Effects of the Rules on AHPs and Short-Term Plans

AHPs		Insured Short-Term Plans	
The number of people in uninsured families who work for small employers that do not offer any health insurance without the rule change	**8.9 million[a]**	The number of people with family marketplace coverage and income above 400 percent of the FPL without the rule change	**1.0 million[a]**
The percentage of small employers that do not offer any health insurance coverage and are potential purchasers of AHPs	× **60 percent**	The percentage of families with family marketplace coverage and income above 400 percent of the FPL who are potential purchasers	× **60 percent**
The average change in the small-employer premium	× **-30 percent**	The average change in the family premium	× **-55%**
The elasticity of small employers that do not currently offer coverage with respect to premiums	× **-0.38**	The elasticity of current nongroup market enrollees with respect to premiums	× **-1.18**
The share of people who accept their employer's offer of coverage	× **80 percent**	The share of people who live in states that allow ISPs under federal regulations	× **60 percent**
The projected number of people who are uninsured and gain family coverage through a small employer that begins to offer an AHP	**500,000[a]**	The projected number of people with income above 400 percent of the FPL who switch from family marketplace coverage to family ISPs	**200,000[a]**

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

AHP = association health plan; FPL = federal poverty level; ISP = insured short-term plan.

a. Rounded to the nearest hundred-thousand people.

For health insurance, elasticities are expressed as negative numbers because people are less inclined to purchase coverage when premiums rise.

In the models for AHPs and short-term plans, CBO and JCT used elasticities to anticipate people's choices about nongroup coverage and employers' choices for small-group coverage. The agencies estimated those elasticities through a review of the literature cited in the selected bibliography. In the small-group market, the elasticity for small employers that did not currently offer coverage is estimated at –0.38, and for small employers that did offer coverage, it is estimated at –0.76. In the nongroup market, CBO and JCT estimated, the purchase elasticity for coverage among people who are currently uninsured is –0.59, and the cross-price elasticity for people currently insured in the nongroup market is –1.18. (An elasticity of –0.59 implies that if premiums increase by 10 percent, the number of people with coverage will decrease by 5.9 percent.)

Take-Up Rates for People With Offers of Coverage From a Small Employer

After identifying small employers that would offer AHP coverage under the new rule, CBO and JCT examined take-up rates—the percentage of eligible people who actually enroll. For most populations, CBO and JCT used the take-up rates that they estimate as part of their health insurance projections. Those rates tend to be around 75 percent or 80 percent: That is, between 75 percent and 80 percent of the people who are offered coverage through a small employer accept that offer.

In some instances, CBO and JCT adjusted the rate to reflect certain populations' characteristics. A lower rate was used for people who, in the projections, would have an offer of employment-based insurance coverage in the absence of the two final rules but would choose not to take up that offer. A higher rate was used for people who expressed a strong preference for insurance (such as those who, in the absence of the new rules, would purchase nongroup coverage without a tax credit). Finally, CBO and JCT expect that most people who are projected to have insurance through a small employer would

retain that coverage, regardless of whether the employer switched to an AHP or continued to offer fully regulated coverage.

Effects of State Policies to Prevent Implementation of the Rules

AHPs and short-term plans are subject to federal and state regulation that in some cases could prevent the two new final rules from taking full effect. In their modeling, CBO and JCT reduced estimated enrollment in short-term plans by almost 40 percent to account for the possible mitigating effects of state laws, which can take a variety of forms but may include any of the following:

- Prohibitions on the sale of short-term plans;
- Requirements that short-term plans comply with guaranteed issue, community rating, and coverage of essential health benefits (regulations that govern the nongroup market); and
- Limiting enrollment in short-term plans to periods of as little as three or six months.

At the time that CBO and JCT conducted the analysis, the states of California, Hawaii, Illinois, Maryland, Massachusetts, New Jersey, New York, Oregon, Vermont, and Washington had laws in place that could be expected to nullify the effects of the new rule for short-term plans. Other states had laws that would reduce but not eliminate the effects, and none had enacted legislation that would augment the effects of the new rule. The selected bibliography lists the sources CBO and JCT consulted. The agencies will account for future changes to state laws during regular updates to their baseline projections of health insurance coverage.

CBO did not make a similar adjustment for the AHP rule because the extent to which states' policies will preclude the expansion of AHPs is not clear, nor is it clear whether the Administration will seek to preempt state laws that attempt to limit the possibility of expansion.

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About This Document

This document, which is part of the Congressional Budget Office's continuing effort to make its work transparent, explains how CBO and the staff of the Joint Committee on Taxation estimated the coverage changes associated with new rules that were aimed at increasing health insurance coverage either through association health plans or through short-term, limited-duration insurance. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

Alice Burns and Kevin McNellis wrote the report with contributions from Kate Fritzsche, Philippa Haven, and Keren Hendel and with guidance from Chad Chirico, Leo Lex, and Sarah Masi. Alissa Ardito, Elizabeth Bass, Susan Yeh Beyer, and Sebastien Gay commented, as did the staff of the Joint Committee on Taxation.

Comments also were provided by Katherine Baicker of the University of Chicago Harris School of Public Policy, Michael Cohen of the Wakely Consulting Group, Sabrina Corlette and Kevin Lucia of the Center on Health Insurance Reforms at the Georgetown University Health Policy Institute, and Preethi Rao of RAND Corporation. The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.

Jeffrey Kling and Robert Sunshine reviewed the report, Kate Kelly edited it, Kim Kowalewski created the figure, and Casey Labrack prepared the report for publication. An electronic version is available on CBO's website (www.cbo.gov/publication/54915).

CBO seeks feedback to make its work as useful as possible. Please send comments to communications@cbo.gov.

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January 2019

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Potential Effects Of Eliminating The Individual Mandate Penalty In California

ABSTRACT The tax penalty for noncompliance with the Affordable Care Act's individual mandate is to be eliminated starting in 2019. We investigated the potential impact of this change on enrollees' decisions to purchase insurance and on individual-market premiums. In a survey of enrollees in the individual market in California in 2017, 19 percent reported that they would not have purchased insurance had there been no penalty. We estimated that premiums would increase by 4–7 percent if these enrollees were not in the risk pool. The percentages of enrollees who would forgo insurance were higher among those with lower income and education, Hispanics, and those who had been uninsured in the prior year, relative to the comparison groups. Compared to older enrollees and those with two or more chronic conditions, respectively, younger enrollees and those with no chronic conditions were also more likely to say that they would not have purchased insurance. Eliminating the mandate penalty alone is unlikely to destabilize the California individual market but could erode coverage gains, especially among groups whose members have historically been less likely to be insured.

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The Tax Cuts and Jobs Act, which became law in December 2017, eliminated the tax penalty for noncompliance with the individual mandate of the Affordable Care Act (ACA) that required most Americans to obtain health insurance coverage. Although the mandate itself was not repealed, the penalty is to be zeroed out starting with the 2019 enrollment year. The Congressional Budget Office (CBO) and the staff of the Joint Committee on Taxation estimated that eliminating the penalty would decrease the number of enrollees in the individual insurance market by about three million nationally in the first year of enactment and increase premiums by about 10 percent.[1]

The primary policy objective of the mandate and penalty was to increase insurance uptake and reduce adverse selection in the individual and small-group insurance markets. Without a penalty, some healthier, lower-cost people would forgo coverage, which in turn would increase the average risk in the pool of enrollees and therefore premiums. The potential effects of the penalty elimination on coverage could depend on a number of other consumer traits in addition to risk level, but little is known about the characteristics of enrollees who might be most likely to leave the insurance market in the absence of a penalty.

The ACA provides subsidies for low-income consumers who purchase plans through the public Marketplace to increase insurance take-up and affordability. Many subsidy-eligible enrollees were previously uninsured and could face greater challenges navigating insurance choices as insurance rules and regulations change, compared to those with more experience purchasing insurance.[2] Millions of enrollees also purchase individual-market insurance off the Marketplace

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and thus are not eligible to receive subsidies. These enrollees tend to be higher income and lower risk, compared with Marketplace enrollees. As a result, the effects of eliminating the mandate could differ off the Marketplace.[3,4] The ACA requires a single risk pool that combines enrollees in on- and off-Marketplace plans for risk adjustment, which redistributes funds from plans with healthier enrollees to those with sicker enrollees. However, changes in the composition of risks in these insurance pools overall could influence insurers' decisions to participate in the Marketplace.

In this article we present estimates of coverage losses and premium increases that could result from eliminating the mandate penalty in California based on a survey of enrollees in the individual market in 2017. We also examine how eliminating the penalty might affect the individual insurance market composition, including the sociodemographic, health, and plan traits of the enrollees who are most likely to be influenced by this policy change.

Study Data And Methods

DATA SOURCES AND STUDY POPULATION The data for this study are from a survey conducted with individual-market enrollees in California in 2017, including those who purchased plans on California's public Marketplace, Covered California, as well as those who bought off-Marketplace plans directly from insurance carriers. We drew a stratified random sample of adults (ages eighteen and older) at a 2:1 ratio from Covered California and off-Marketplace enrollment, respectively, to reflect estimates of on- versus off-Marketplace enrollment. We used enrollment files from three large insurance carriers in California to identify off-Marketplace enrollees. We included those enrolled as of February 28, 2017, and we excluded enrollees who specified a language preference other than English or Spanish. We also excluded people in catastrophic plans because of these plans' restricted eligibility and limited uptake.

SURVEY PROTOCOL We worked with a survey vendor, SSRS, to field the survey in the period May–October 2017. Potential participants were mailed an introductory letter including a $2 preincentive and instructions for completing the survey online. Trained interviewers called those who did not complete the survey online up to thirteen times in an attempt to conduct it over the telephone. Those who did not complete the survey online or over the telephone were mailed a self-administered paper survey. Respondents were offered a $10 incentive for completing the survey; this was increased to $20 in the last eight weeks of fielding.

A total of 3,010 enrollees completed the survey for a response rate of 42 percent, based on the American Association for Public Opinion Research's response rate 3 calculation.[5] This calculation accounts for refusals as well as nonresponse among people who were potentially eligible but could not be reached to ascertain eligibility. Based on enrollment data, respondents were more likely than nonrespondents to be older (for example, 36 percent versus 27 percent were ages 55–64) and female (57 percent versus 50 percent; in both cases, $p < 0.05$). However, the proportion who received cost-sharing or premium subsidies did not differ.

All analyses included design weights to account for differential nonresponse due to the availability of email addresses for potential respondents. We further applied poststratification weights to balance the sample to resemble the health plan population distribution in terms of sex, age, plan metal tier, type of plan, and subscriber versus dependent status, and weights to reflect the share of enrollees per carrier in the overall individual market. These analyses focused on the 2,912 people enrolled in a qualified health plan and excluded those in grandfathered plans, who were included in our prior report.[6]

MEASURES

▶ **MANDATE PENALTY:** The survey asked respondents the following question about their knowledge of the penalty: "Did you know that you would have to pay a tax penalty or fine if you did not have health insurance coverage this year?" The survey asked those who were aware of the penalty to answer yes or no to another question: "Would you have purchased health insurance coverage this year if there was no penalty?"

▶ **ENROLLEE AND PLAN CHARACTERISTICS:** From enrollment files, we obtained information on respondents' age, sex, and plan metal tier and whether the plan was purchased on or off the Marketplace. We obtained additional information on respondents' sociodemographic characteristics from the survey, including race/ethnicity, household income and size, marital status, and education. The survey also collected health information, including self-rated health (excellent, very good, good, fair, or poor), current smoking status, and whether their doctor had ever told them that they had any of the following health conditions: asthma, emphysema, or chronic bronchitis; diabetes; coronary heart, angina, heart attack, other heart conditions, or a stroke or transient ischemic attack; heart failure; cancer; arthritis; hepatitis or other liver disease; depression or other mental illness; or HIV. Respondents also reported their height and

weight, which we used to calculate their body mass index; and what type of insurance coverage they had had in 2016, the prior year, including whether they had been uninsured for any or all of the year.

We used multiple imputation with chained equations to impute missing values, including household income for the 24 percent of respondents who did not provide sufficient income information for us to place them in one of three income categories that correspond with cutoffs for income-based subsidies: less than 250 percent of the federal poverty level (eligible for cost-sharing and premium subsidies), 250–399 percent of poverty (eligible for premium subsidies only), or 400 percent of poverty or more (not eligible for any subsidies). The imputation models included the individual sociodemographic and health characteristics listed above. They also included the following information on the respondent's ZIP code of residence: the percentage of residents living below the poverty level; the percentage ages twenty-five and older with a high school education or less; and the percentages white, black, and Hispanic based on data from the 2011–15 American Community Survey five-year estimates.

We grouped enrollees by their likely eligibility for income-based subsidies as described above and by whether they purchased their plan on Covered California and thus received premium subsidies for which they were potentially eligible. Under the ACA, respondents with incomes of less than 250 percent of poverty had to purchase a silver plan on the Marketplace to also receive the cost-sharing reduction.

We compared the proportion of respondents who said that they would not have purchased insurance if there had been no mandate penalty in 2017 by enrollee traits and plan choices. We also used multivariate logistic regression models to assess the characteristics associated with respondents who reported that they would not have purchased insurance.

▶ **PREDICTED MEDICAL SPENDING:** We estimated predicted annual medical spending for each enrollee based on age-sex category, race/ethnicity, household income (less than 250 percent, 250–399 percent, or 400 percent of poverty or more), self-rated health, current smoking status, body mass index (less than 26, 26–30, or more than 30 kg/m^2), and chronic conditions. We calibrated the predicted spending models using a pooled sample of commercially insured enrollees (in the group or nongroup market) in the 2014–15 Medical Expenditure Panel Survey (MEPS). We used a prospective model with 2014 characteristics to predict 2015 spending. We used a two-part model with a logistic model to predict the probability of any medical spending and a generalized linear model for the second part, with log link function and gamma distribution.[7]

We applied the coefficients obtained from the models described above to our sample of enrollees to predict individual medical spending for survey respondents. We estimated the change in premiums based on mean predicted spending if enrollees who said that they would have not purchased insurance in the absence of the mandate penalty were not in the risk pool, both overall and in the on- and off-Marketplace risk pools separately. We estimated 95% confidence intervals around these estimates using a bootstrap procedure with 1,000 replications. In sensitivity analyses, we compared differences in spending based on alternative model specifications. Because our prospective spending model was more likely to underpredict spending for the highest spenders,[8,9] we also conducted a sensitivity test in which we used the mean actual spending from MEPS by risk decile instead of enrollees' individual predicted spending to calculate the potential changes in premiums. The results from these analyses were consistent with our main results. (For results of the sensitivity analysis, see online appendix exhibit A1.)[10]

LIMITATIONS Our study had several limitations. First, we estimated enrollees' medical spending based on MEPS data for privately insured enrollees nationally, which could have misestimated spending for enrollees in California.

Second, the survey was fielded before the elimination of the mandate penalty. Thus, we could have overestimated effects if there were greater inertia in actual insurance changes, compared with survey responses.[11,12]

Lastly, our estimates accounted only for people who said that they would not have purchased insurance in the absence of the penalty. The estimates did not include enrollees who might subsequently forgo insurance because of higher premiums or other recent policy changes.

Study Results

The mean age of the study enrollees was forty-six (data not shown). Fifty-two percent were white, 25 percent Hispanic, 17 percent Asian, and 2 percent black (exhibit 1). Sixty-five percent of enrollees reported household incomes of less than 400 percent of poverty, 12 percent had been uninsured for some or all of 2016, and 58 percent reported having no chronic conditions.

INSURANCE PURCHASING DECISIONS IN THE ABSENCE OF A MANDATE PENALTY Seventy-two percent of enrollees said that they would have purchased insurance in 2017 if there had been no

EXHIBIT 1

Characteristics of the study population of individual-market enrollees in California, 2017

Characteristic	Enrollees (%)
SEX AND AGE (YEARS)	
Male, 18–30	10
Female, 18–30	11
Male, 31–40	8
Female, 31–40	9
Male, 41–50	9
Female, 41–50	11
Male, 51 or more	20
Female, 51 or more	21
RACE/ETHNICITY	
Asian	17
Black	2
Hispanic	25
Other	3
White	52
EDUCATION	
High school or less	22
Any college	61
Any graduate school	17
HOUSEHOLD INCOME, PERCENT OF FEDERAL POVERTY LEVEL	
Less than 250%	48
250–399%	17
400% or more	35
INSURANCE STATUS IN 2016	
Insured, whole year	88
Uninsured, part or whole year	12
SELF-RATED HEALTH	
Excellent or very good	64
Good	27
Fair or poor	9
CHRONIC CONDITIONS	
0	58
1	30
2 or more	12
MARKETPLACE PLAN	
Yes	71
No	29
PLAN TIER	
Bronze	30
Silver	57
Gold or platinum	12

SOURCE Authors' analysis of data from a 2017 survey of individual-market enrollees in California. **NOTE** The study population includes 2,912 adult respondents who were enrolled in a qualified health plan on or off the Marketplace in 2017.

mandate penalty, 8 percent were unaware of the mandate penalty altogether, and 1 percent did not respond (data not shown). The remaining 19 percent said that they would not have purchased insurance had there been no penalty.

Enrollees in younger age groups were more likely to say that they would not have purchased insurance if there had been no penalty: for example, 26 percent of males ages 18–30, compared with 12 percent of males ages 51 and older (exhibit 2). The influence of the mandate was similar across levels of self-reported health status. However, compared to people with two or more chronic conditions (which could be a more reliable indicator of enrollees' expected need for medical care), those with no chronic conditions were more likely to say that they would not have purchased insurance if there had been no penalty (22 percent versus 12 percent). Hispanic enrollees, those with lower educational attainment, and those who had been uninsured at any time in the prior year were also more likely to say that they would not have purchased insurance, relative to enrollees in the respective comparison groups.

In multivariate analyses that adjusted for sociodemographic, health, and plan characteristics, Hispanic and previously uninsured enrollees were significantly more likely to report they would not have purchased insurance if there had been no penalty (for example, for Hispanic versus white enrollees, odds ratio: 2.3; 95% confidence interval: 1.7, 3.0). (Full model results are in appendix exhibit A2.)[10]

SUBSIDY ELIGIBILITY AND PLAN CHARACTERISTICS Enrollees who purchased their plan through the California Marketplace were more likely to say that they would not have purchased insurance if there had been no penalty, compared with those who purchased an off-Marketplace plan (22 percent versus 11 percent) (exhibit 3). These on-Marketplace exits were concentrated among enrollees with incomes below 250 percent poverty (25 percent), who were more likely to be eligible for both cost-sharing and premium subsidies, and those who chose lower-premium bronze plans (30 percent), relative to enrollees in the respective comparison groups.

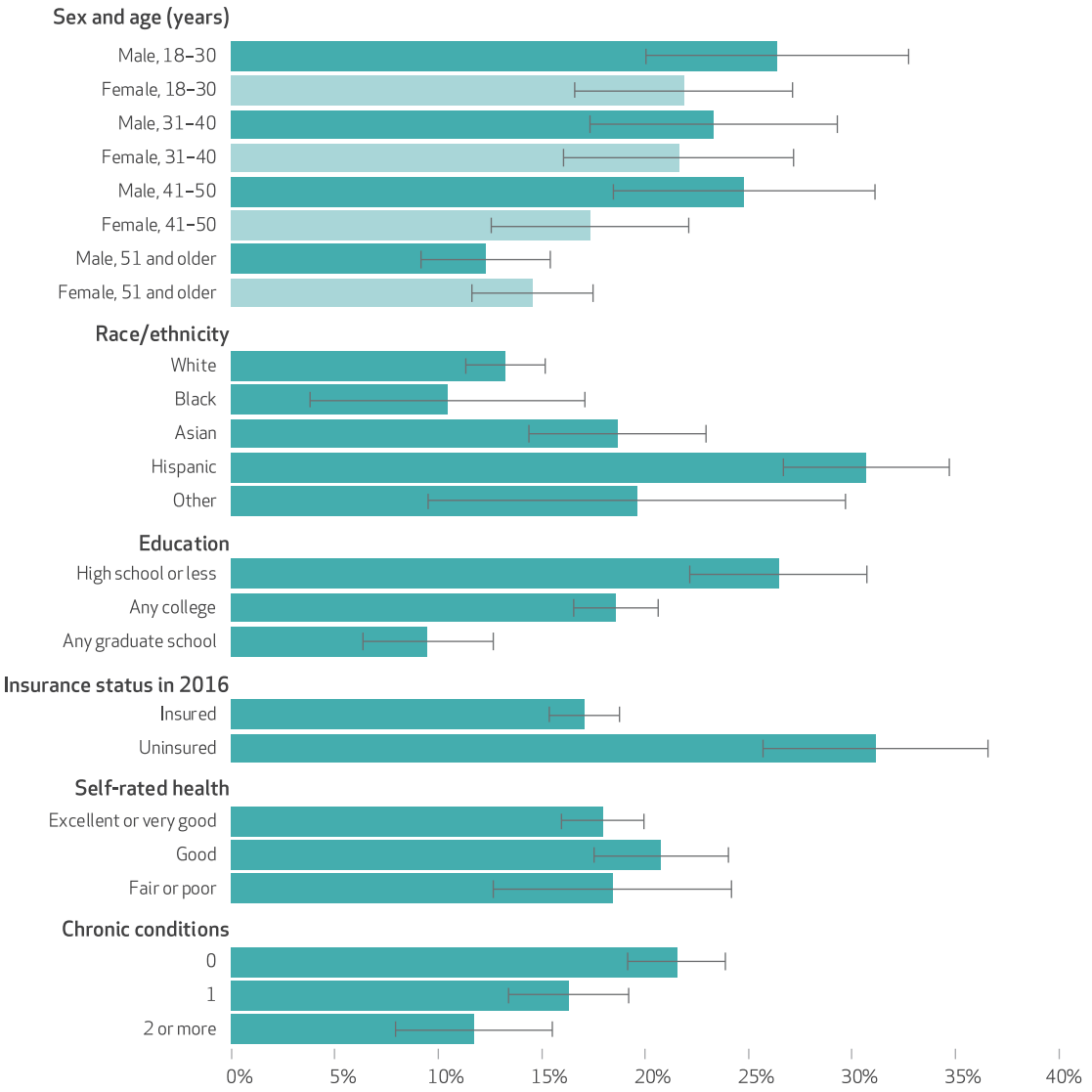
PREMIUM IMPACT We estimated that premiums in the overall market would increase by 6 percent if those who said that they would not have purchased insurance in the absence of the penalty were not in the risk pool (exhibit 4). Potential changes in premiums were larger among the pool of on-Marketplace enrollees than among the pool of off-Marketplace enrollees (6 percent versus 3 percent).

Discussion

The elimination of the individual mandate penalty starting with the 2019 enrollment year raises concerns about reductions in insurance coverage and increases in premiums. We found that 19 percent of qualified health plan enrollees in California said that they would not have purchased insurance in 2017 if there had not been a mandate penalty, and that premiums would be about 4–7 percent higher if these enrollees were

EXHIBIT 2

Individual-market enrollees who said that they would not have purchased insurance if there had been no individual mandate penalty in 2017, by enrollee characteristics



SOURCE Authors' analysis of data from a 2017 survey of individual-market enrollees in California. **NOTES** The percentages are unadjusted and weighted. The whiskers indicate 95% confidence intervals. "Insured" means insured for all of 2016. "Uninsured" means uninsured for all or part of 2016.

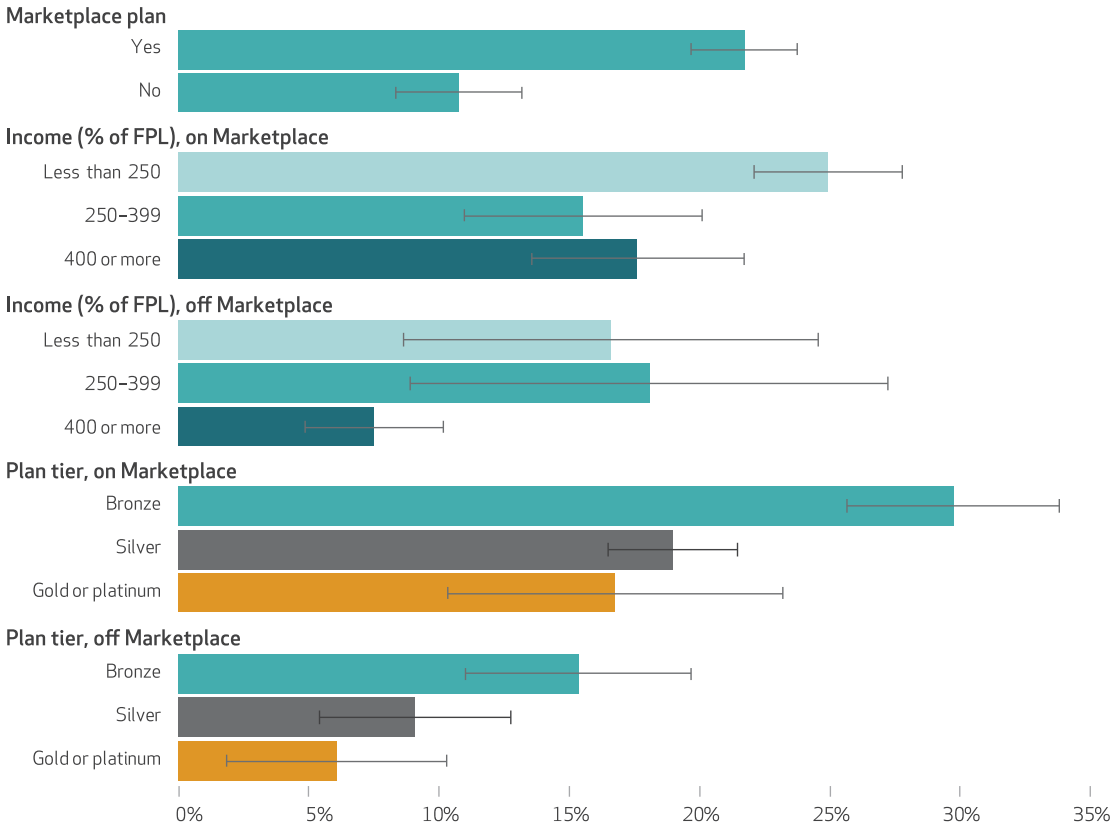
not in the risk pool. Some vulnerable subgroups, including Hispanic enrollees (compared to whites), those with lower educational attainment (compared to those with higher attainment), and those who had been uninsured in the prior year (compared to those insured throughout that year) were more likely to report that they would have not purchased insurance in the absence of the mandate penalty.

Our estimate of a premium increase of 4–7 percent suggests that eliminating the mandate penalty alone is unlikely to destabilize the California market—that is, lead to substantial and progressive losses in enrollment of healthier people and increases in premiums. In the period 2014–18 unsubsidized premiums rose by an average of 8.5 percent per year in California, with enrollment growing slightly over the same period. However, California has had relatively robust insurer participation, greater outreach, and additional consumer protections, compared with other states. Thus, the impact of this change in other states could well be greater.

Our findings of potential individual-market coverage losses in California are similar to the CBO's estimate of a decrease in enrollment of

EXHIBIT 3

Individual-market enrollees who said that they would not have purchased insurance if there had been no individual mandate penalty in 2017, by plan choice and subsidy eligibility



SOURCE Authors' analysis of data from a 2017 survey of individual-market enrollees in California. **NOTES** The percentages are unadjusted and weighted. The whiskers indicate 95% confidence intervals. Income is household income. FPL is federal poverty level.

about 15 percent in the first year of the penalty elimination.[1] The CBO's estimate is a national one, however, which could mask heterogeneity in potential effects across states.[13] We also could have overestimated the short-run effects of eliminating the penalty if enrollees were unaware of the policy change or its timing. A Kaiser Family Foundation poll found that only 19 percent of current enrollees were aware that the penalties had been repealed as of 2019, and 38 percent thought that the penalties had not been repealed at all.[14] Consistent with these findings of limited knowledge of the policy change, a comparatively smaller proportion of individual-market enrollees in the Kaiser poll (10 percent) said that they did not intend to purchase insurance in 2019.

We found that potential increases in the average risk of the insurance pool could be greater among on- versus off-Marketplace enrollees, which raises concerns about maintaining insurers' participation in the Marketplace in the absence of the penalty. Over half of all counties nationally (which contained over a quarter of ACA Marketplace enrollees) had only a single insurer offering plans on the Marketplace in 2018, up from 33 percent in 2017 and 7 percent in 2016.[15,16] Over 80 percent of Marketplace enrollees are eligible for subsidies, so insurers' ex-

EXHIBIT 4

Estimated change in mean annual predicted spending associated with eliminating the individual mandate penalty in 2017

	Change in mean annual predicted spending	95% CI
Overall	6%	(4, 7)
On Marketplace	6%	(4, 8)
Off Marketplace	3%	(1, 5)

SOURCE Authors' analysis of data from a 2017 survey of individual-market enrollees in California. **NOTES** We estimated changes in mean annual predicted spending for the current risk pool of enrollees versus changes in the risk pool not including enrollees who reported that they would not have purchased insurance if there had been no individual mandate penalty in 2017. Spending predictions were based on sex and age category, race/ethnicity, household income, self-rated health, current smoking status, body mass index category, and chronic condition indicators. CI is confidence interval.

its from the Marketplaces could further reduce plan choices for low-income consumers.[2] Contrary to our expectations, we also found that low-income consumers who enrolled in plans through the California Marketplace and were eligible for subsidies—including premium tax credits that could help shield them from potential premium increases—were more likely to say that they would not purchase insurance in the absence of the penalty, compared with higher-income enrollees. These findings could highlight the persistent insurance affordability challenges that low-income enrollees face, even in the presence of ACA subsidies.[17–19]

Importantly, although our study attempted to isolate the impact of eliminating the mandate penalty, there have been numerous other policy changes that could increase premiums or discourage participation in the individual market and so exacerbate potential adverse selection into the market. For example, in October 2017 the federal government stopped reimbursing insurers for the cost-sharing reduction that plans are required to offer low-income consumers. In addition, the administration of President Donald Trump finalized new rules that expand access to short-term health plans and association health plans, which are not subject to all of the ACA's consumer protection requirements for qualified health plans. CMS estimated that the new short-term plan rule could lead to losses of enrollment in the individual market of about 1.7 million enrollees by 2022.[20]

The Trump administration also made large cuts in federal funding for marketing and shortened the open enrollment period during which consumers can sign up for coverage in 2018 and 2019. Curtailing outreach efforts could exacerbate the uneven effects of the mandate penalty repeal on vulnerable populations. In particular, prior efforts to increase uptake of coverage among uninsured Hispanics have included substantial outreach and the use of navigators to assist with the enrollment process.[21,22] Our analysis found that nearly one-third of Hispanic enrollees said that they would not have purchased coverage in the absence of a mandate penalty. Work is needed to understand the underlying reasons for the potentially larger losses in coverage among Hispanic enrollees, compared with other racial/ethnic groups, in the absence of a mandate penalty.

Massachusetts and New Jersey are the only states with their own insurance mandates in place for 2019, but other states (not including California) have introduced proposals for state-level individual mandates.[23] California is considering other policy proposals to shore up the individual insurance market, including using state funds to expand premium and cost-sharing subsidies.[24] States are also considering creating their own reinsurance programs, largely through State Innovation Waivers under section 1332 of the ACA, to help insurers cover the cost of high-cost enrollees and stabilize individual-market premiums following the end of the federal reinsurance program in 2017. As of September 2018 seven states had received approval for their waiver reinsurance proposals.[25]

Conclusion

Eliminating the Affordable Care Act's mandate penalty may erode coverage gains and increase premiums on the California individual market by 4–7 percent. This level of premium increase is unlikely by itself to destabilize the California insurance market, although this policy change could have larger effects in other states. Even in California other recent policy changes could have broader adverse impacts on premiums, coverage, and market stability. The penalty elimination could also disproportionately affect vulnerable subgroups. State-level policies could help mitigate these effects, although there is limited time for states to craft or adopt such policies. ■

An earlier version of these findings was presented at the AcademyHealth Annual Research Meeting (ARM), in Seattle, Washington, June 24, 2018, and featured in the panel, "Best of ARM Hot Topics: Innovative Policy Evaluations for Optimizing Health, Health Care Financing, Access, and Equity." This study was funded by the California Health Care Foundation (CHCF). William Dow received support from Covered California. Julie Shi's work is funded by the Research Seed Fund from the School of Economics, Peking University. The authors gratefully acknowledge the contributions of Amy Adams, of the CHCF, and Jordon Peugh, of SSRS, to this project. When this work was undertaken, Joseph Newhouse was a director of and held equity in Aetna. Michael Chernew reports receiving compensation, including grants, from Archway Health; Elsevier, Inc.; the Health Care Cost Institute; Intellisphere, LLC; Milliman; MITRE Corporation; the National Institute for Health Care Management Foundation; Commonwealth Fund; VBID Health; Virta Health; Pfizer, Inc.; PhRMA; Amgen; Johnson and Johnson; Sanofi; Paladin Healthcare Capital; GI Roundtable; St. Louis Area Business Health Coalition; America's Health Insurance Plans; Laura and John Arnold Foundation; Peter G. Petersen Foundation; and Merck and Co.

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January 2019

The Health Care Priorities and Experiences of California Residents

Findings from the Kaiser Family Foundation/California Health Care Foundation California Health Policy Survey

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Introduction

California, the nation's most populous state and one with a diverse population in terms of race, ethnicity, income, and geography, has often been at the leading edge of national health care trends. A state that fully embraced the Affordable Care Act (ACA), California has the nation's largest Medicaid program (known in the state as Medi-Cal) with a total enrollment of over 13 million, and the second-largest ACA marketplace enrollment of nearly 1.5 million, just behind Florida. California's newly-elected governor, Gavin Newsom, made health care a prominent part of his campaign platform in 2018, and announced a sweeping set of health care proposals soon after being sworn in in January 2019.

In late 2018, the Kaiser Family Foundation and the California Health Care Foundation conducted a representative survey of the state's residents to gauge their views on health policy priorities facing the state, as well as their experiences in the health care system. Key findings from the survey are presented here.

Section 1: Priorities For State Government

As the new governor takes office and a new legislative session begins, health care is an important priority for California residents. Making health care more affordable ranks high on Californians' list of overall priorities for the new governor and legislature to address, with 45 percent calling it an "extremely important" priority, ranking just behind improving public education (48 percent say this is "extremely important") and just ahead of affordable housing (40 percent). [Figure 1]

While health care affordability ranks second on the priority list for both Democrats and independents (behind education for each group), it ranks lower for Republicans, whose top priority is immigration enforcement. [Figure 2]

There is broad support for many health care priorities in the state, with the exception of decreasing state government spending on health care. Making sure people with mental health problems can get the treatment they need was identified by 88 percent of Californians as an "extremely" or "very" important priority (including 49 percent "extremely" important). At least three-quarters also see other health priorities as at least "very important," including making sure Californians have access to health insurance coverage (78 percent, including 45 percent "extremely" important); lowering the amount people pay for health care (81 percent, 41 percent "extremely"); lowering the price of prescription drugs (75 percent, 39 percent "extremely"); making sure there are enough health care providers across California (77 percent, 38 percent "extremely"); and making information about medical prices more available (76 percent, 37 percent "extremely"). [Figure 3]

The survey finds some areas of bi-partisan agreement when it comes to health care priorities in the state, and other areas where priorities differ for residents with different partisan identification. For example, mental health is an area of agreement: ensuring access to mental health treatment is seen as an extremely important priority by substantial shares of Democrats (54 percent), independents (46 percent), and Republicans (43 percent), and ranks in the top two health care priorities for each of these groups. There is less agreement between people of different political parties when it comes to some other

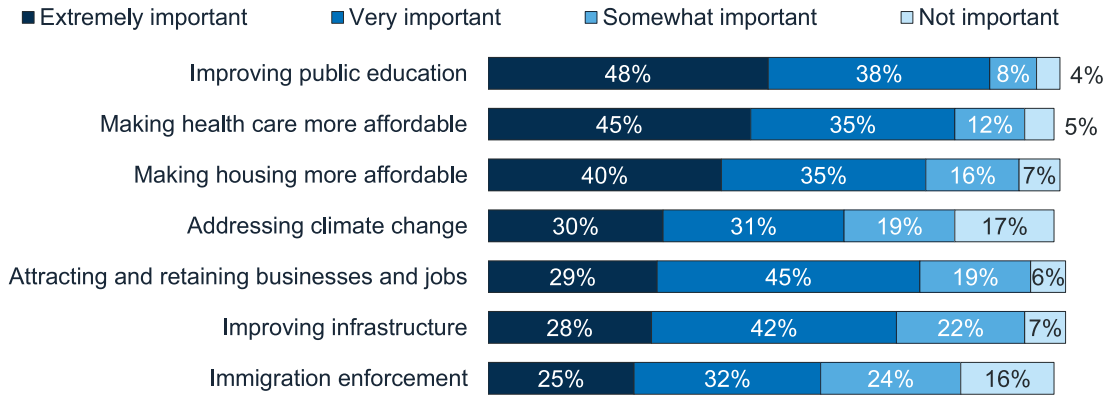
priorities. For example, Democrats and independents are much more likely than Republicans to view ensuring access to insurance coverage as an “extremely important” priority (56 percent, 44 percent, and 21 percent, respectively). [Figure 4]

The ranking of most health care priorities is similar across income levels. However, those with lower self-reported incomes (below 200 percent of the federal poverty level) are more likely than those with higher incomes to say making sure there are enough doctors, nurses, and other health care providers across California should be extremely important for the state government to work on in 2019 (46 percent versus 33 percent). [Figure 5]

Figure 1

Improving Public Education And Lowering The Cost Of Health Care Rank High In Californians’ Priorities For 2019

How **important** do you think it is for the new California governor and legislature to work on each of these areas in 2019?

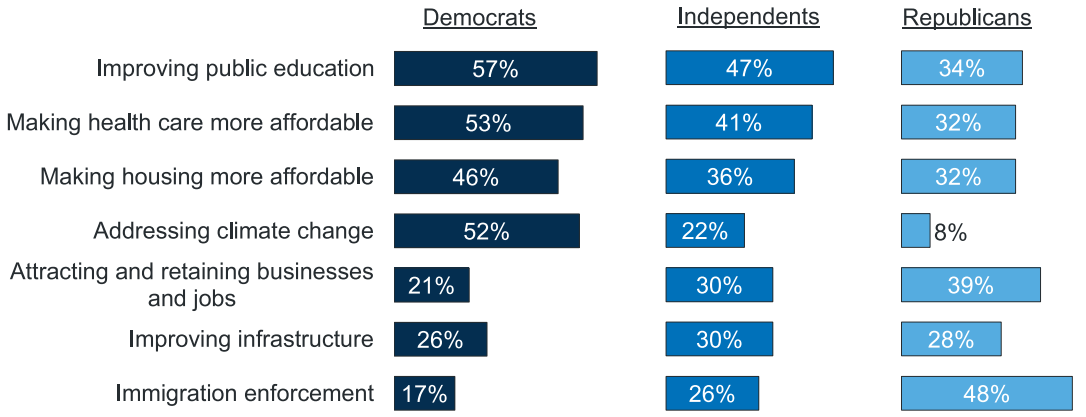


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 2

Views Of What California Lawmakers Should Work On In 2019 Vary By Party

Percent who say it is **extremely important** for the new California governor and legislature to work on each of these areas in 2019:

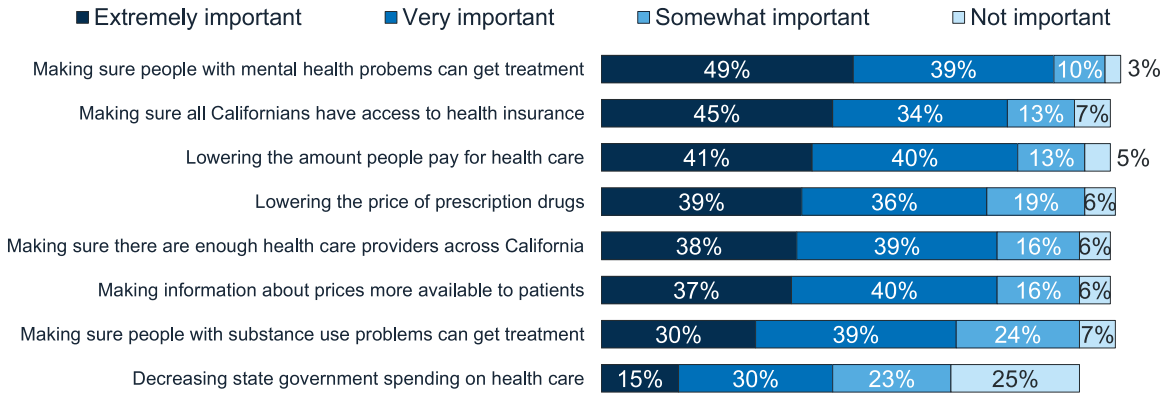


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 3

Access To Mental Health Treatment And Insurance Coverage Top Californians' List Of Health Care Priorities

How **important** do you think it is for the new California governor and legislature to work on each of these areas in 2019 **when it comes to health care**?



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 4

Ranking Of Californians' Health Care Priorities By Party Identification

Percent who say it is **extremely important** for the new California governor and legislature to work on each of these areas within health care in 2019:

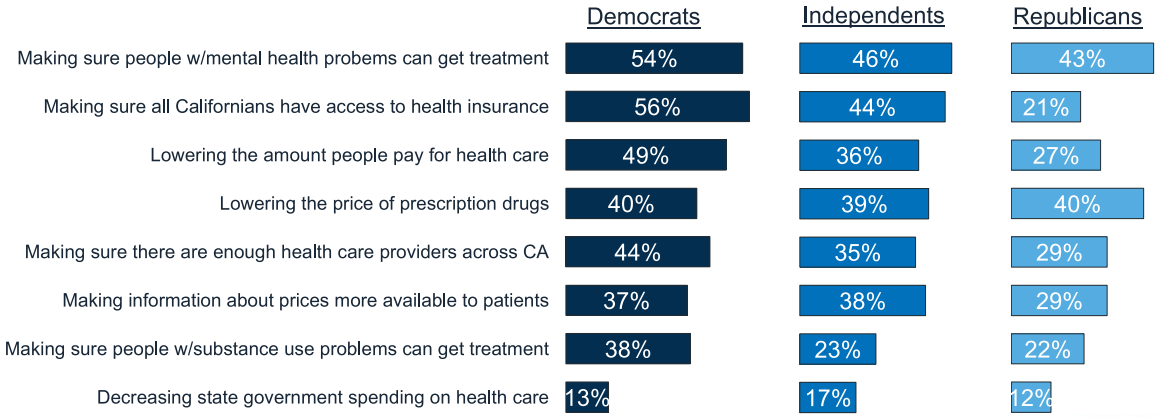


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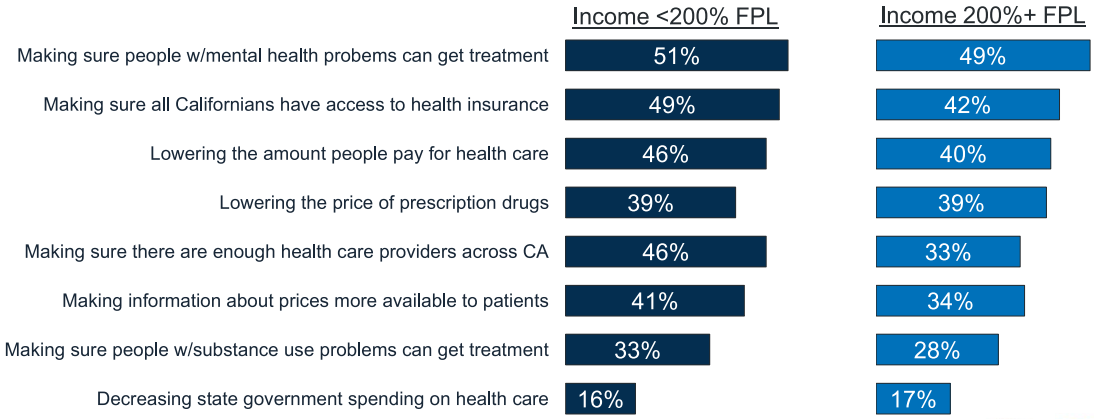
Figure 5

Ranking Of Californians' Health Care Priorities By Self-Reported Income

Percent who say it is **extremely important** for the new California governor and legislature to work on each of these areas within health care in 2019:



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Section 2: Mental Health Coverage And Access To Treatment

As noted above, making sure people with mental health problems can get treatment tops the list of California residents' health care priorities for the state government to address. This may be related to the fact that about half (52 percent) of Californians say their community does not have enough mental health providers to serve the needs of local residents, compared to 27 percent who say it does have enough and 21 percent who say they don't know enough to say. In four of the six California regions broken out in the survey, majorities of residents say their community does not have enough mental health providers to serve residents' needs, with the highest share in Los Angeles County (58 percent). [Figure 6]

In addition, Californians who are Black (75 percent) or Hispanic (57 percent) are more likely than those who are white (49 percent) or Asian (42 percent) to feel their community lacks adequate numbers of mental health providers, and women are somewhat more likely than men to feel this way (57 percent versus 47 percent). [Figure 7]

About a quarter (24 percent) of California residents say that they or a family member sought counseling or treatment for a mental health condition in the past 12 months. [Figure 8] Among this group, nearly two-thirds (63 percent) say their community does not have enough providers.

More broadly, a majority (57 percent) of state residents think that most people with mental health conditions in California are not able to get the services they need, and nearly half (48 percent) say the same about people with alcohol or drug use problems. [Figure 9]

Again, these shares are higher among those who have sought such services: 66 percent of those who say they or a family member sought services for a mental health condition say most Californians are not able to get needed mental health services. Similarly, 61 percent of those who say they or a family member sought treatment for substance use problems say most Californians are not able to get needed treatment services. [Figure 10]

Access to mental health treatment may be a particular issue for residents with Medi-Cal coverage. Among non-elderly Medi-Cal enrollees who say they or a family member sought counseling or treatment for a mental health condition in the past 12 months, four in ten (42 percent) say there was a time when they had to wait longer than they thought was reasonable to get an appointment for these services. Among all Californians who say someone in their family sought mental health treatment, this share is about one quarter (23 percent). [Figure 11]

Treatments for mental health and substance use disorders are widely seen by Californians as effective. About three-quarters (76 percent) of state residents say that counseling and medical treatment is very effective in helping people with mental health conditions lead healthy and productive lives, and a similar share (73 percent) say the same about people with alcohol or drug use problems. [Figure 12]

Despite the high priority placed on this issue, few Californians are aware of mental health parity laws that require health insurance plans to provide mental health and substance use disorder treatment benefits that are on par with benefits for other medical services[1]. One third (33 percent) know that insurance plans are required to provide mental health benefits with the same rules about cost-sharing and coverage limits as other medical services, and just a quarter know this is the case for coverage of substance abuse treatment. [Figure 13]

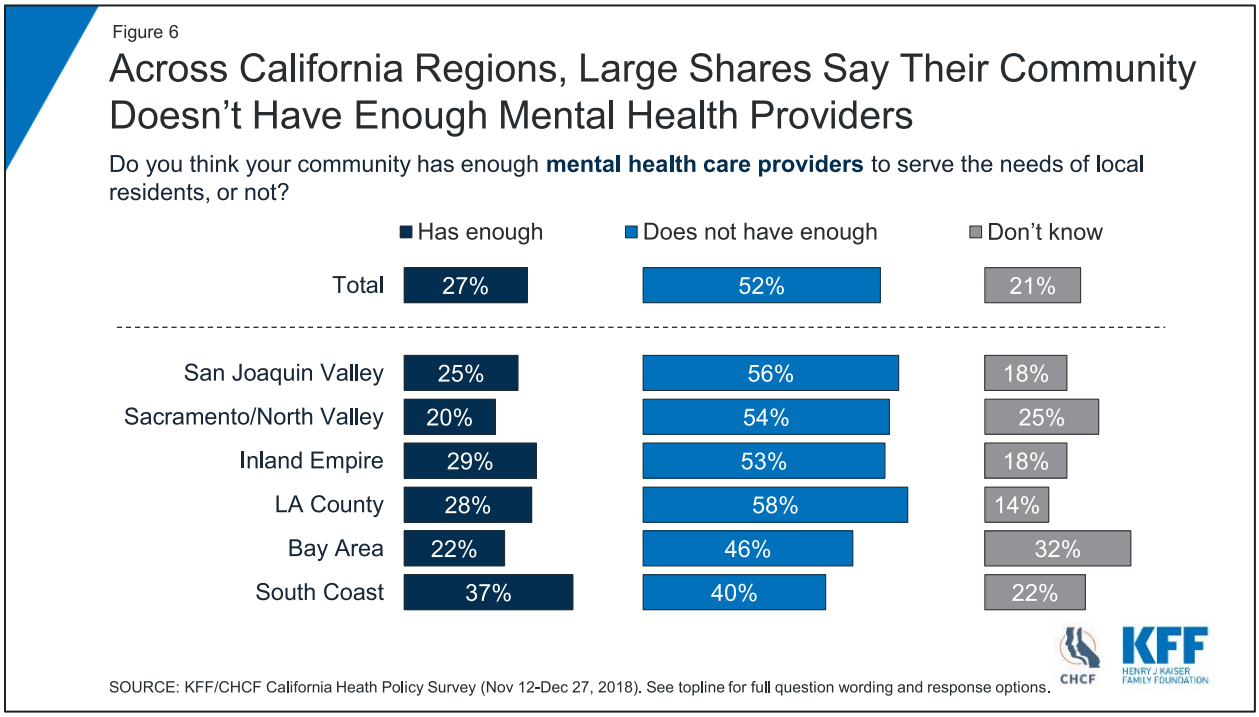
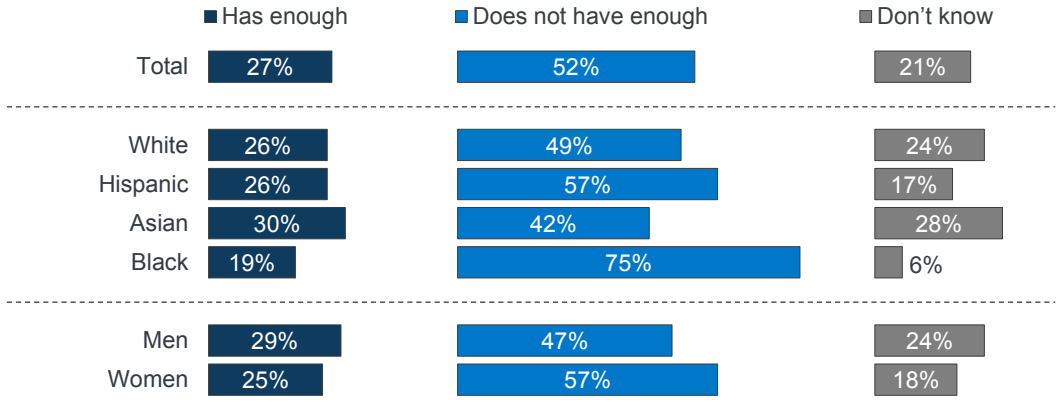


Figure 7

Three-Quarters Of Black California Residents Say Their Community Doesn't Have Enough Mental Health Providers

Do you think your community has enough **mental health care providers** to serve the needs of local residents, or not?

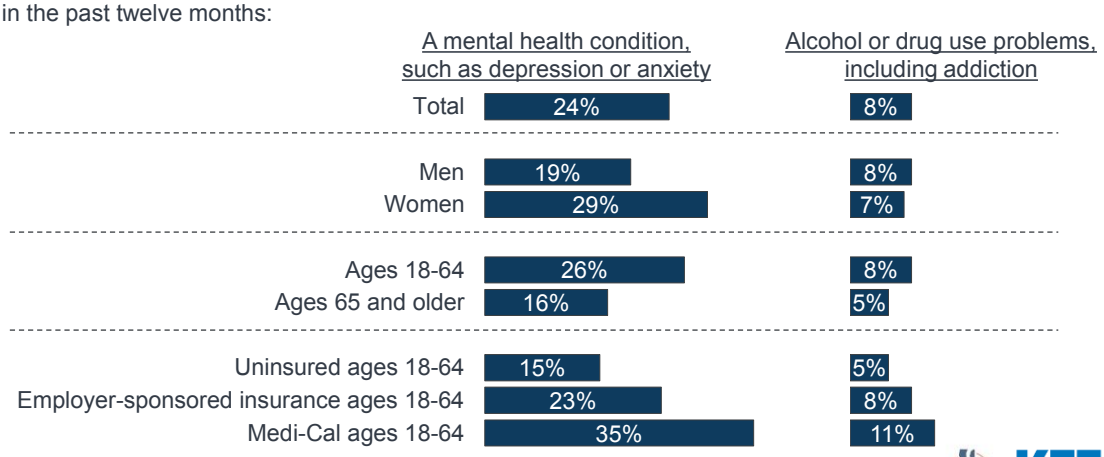


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 8

Share Of Californians Who Report Seeking Services For Mental Health Or Substance Use Conditions

Percent who say they or a family member **sought counseling or treatment** for each of the following in the past twelve months:

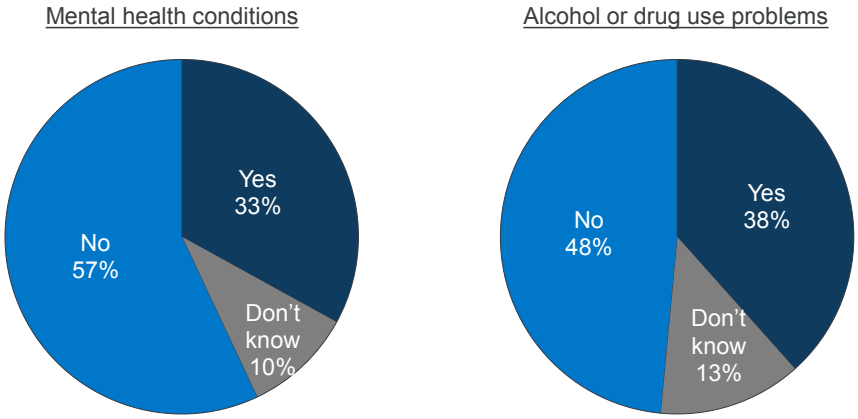


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 9

About Half Believe Most Californians Who Need Mental Health Or Substance Use Services Are Not Able To Get Them

Do you think that most people with … in California are able to get the services they need, or not?

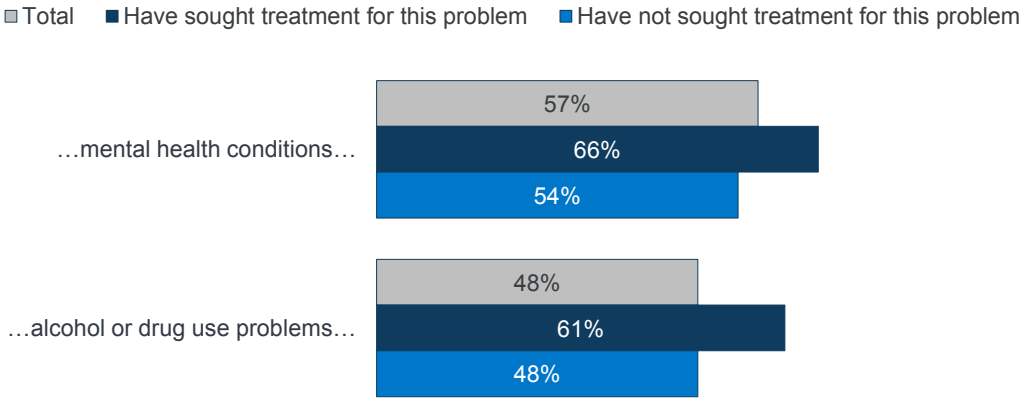


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 10

Californians Who Have Sought Mental Health Or Substance Use Treatment More Likely To Perceive Lack Of Access To Services

Percent who say most people with … in California are **not able to get the services they need**:

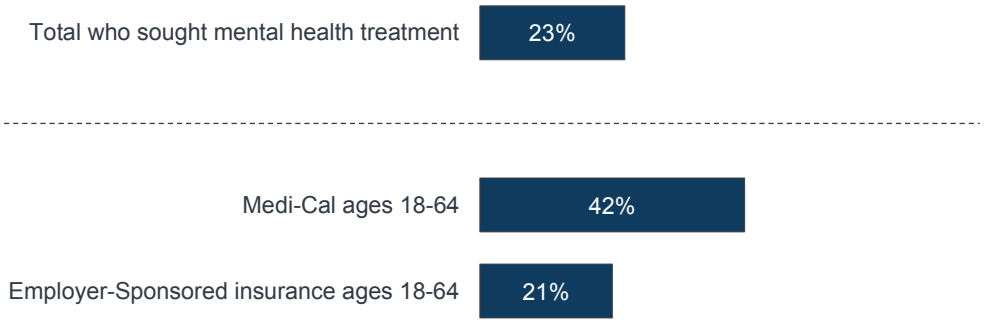


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 11

About One-Quarter Of Californians Who Sought Mental Health Treatment Report Long Wait Times For Appointments

AMONG THOSE WHO SAY THEY OR A FAMILY MEMBER SOUGHT TREATMENT FOR A MENTAL HEALTH CONDITION IN THE PAST 12 MONTHS: Percent who say they **have had to wait longer than they thought was reasonable** to get an appointment for **mental health care**:

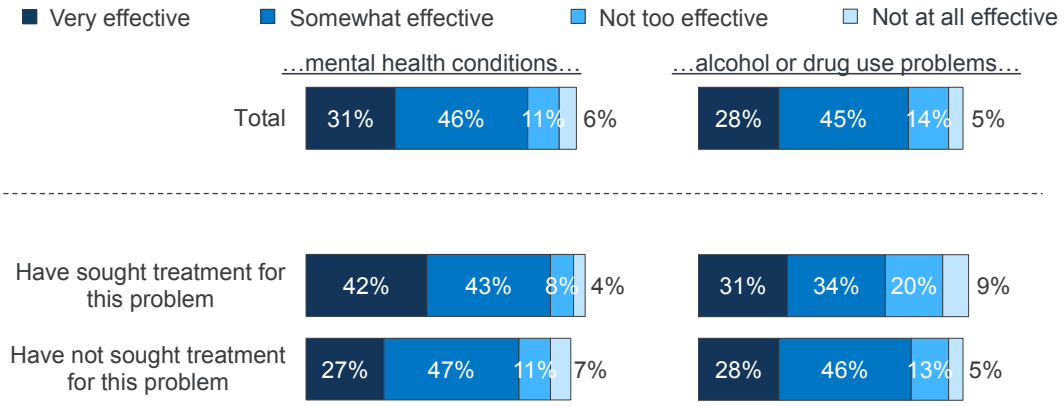


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 12

Counseling And Medical Treatments For Mental Health And Substance Use Problems Widely Viewed As Effective

In general, how **effective** do you think counseling and medical treatment is in helping people with … lead healthy and productive lives?

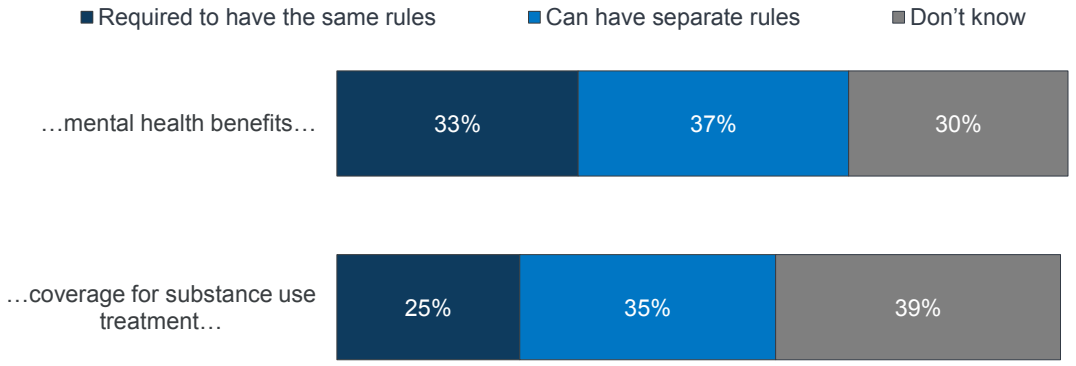


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 13

Most Californians Are Not Aware of Mental Health And Substance Use Parity Laws

As far as you know, under current law, are health insurance plans required to provide … with the **same rules about copays, deductibles, and coverage limits** as other medical services?



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Section 3: Insurance Coverage, Including The ACA, Covered California, Medi-Cal, And Single-Payer

Views of the Affordable Care Act (ACA) are slightly more favorable in California than they are in the nation as a whole, with 58 percent having a favorable view of the law and 30 percent having an unfavorable view. [Figure 14] In the January 2019 KFF Health Tracking Poll, views of the law nationally were 51 percent favorable and 40 percent unfavorable. This difference is likely due to the fact that Californians lean more Democratic in their party identification than the nation as a whole.

Most Californians also believe the state marketplace, Covered California, is working well (56 percent). Views of both the ACA and the state marketplace are divided along party lines. [Figure 15]

As is true nationally, Medi-Cal, the state Medicaid program, is more popular than the ACA, including across parties. Seven in ten California residents overall have a favorable opinion of Medi-Cal, including large majorities of Democrats (82 percent) and independents (67 percent) and about half (53 percent) of Republicans. [Figure 16] In addition, an overwhelming majority of residents say that Medi-Cal is very or somewhat important for the state of California (91 percent), including large majorities of Democrats (97 percent), independents (90 percent), and Republicans (80 percent). A majority (59 percent) of state residents say the Medicaid program is important for their own family, including about six in ten Democrats and independents (62 percent each) and four in ten Republicans (39 percent). [Figure 17]

While large majorities across income levels and racial/ethnic groups say Medi-Cal is important for the state of California, people who are Black or Hispanic, and those with self-reported incomes below 200 percent FPL are much more likely than their counterparts to say the program is important for their own family. [Figure 18]

Despite high levels of support for the program, misperceptions about Medi-Cal are common. Fewer than four in ten state residents (37 percent) are aware that most working age adults without disabilities who have health insurance through Medi-Cal are working, while a similar share (42 percent) believe most are unemployed and 20 percent say they don't know. [Figure 19] In fact, 62 percent of non-elderly, non-disabled adults enrolled in Medi-Cal were employed in 2016.[2]

While making sure Californians have access to health insurance coverage is near the top of the list of Californians' health care priorities for the new governor and legislature, views are somewhat divided on achieving this through a single-payer health plan in the state. About half the public (48 percent) favors such a plan, while four in ten are opposed. Notably, six in ten California Republicans (62 percent) strongly oppose such a plan, while about half as many Democrats (32 percent) strongly favor it. [Figure 20]

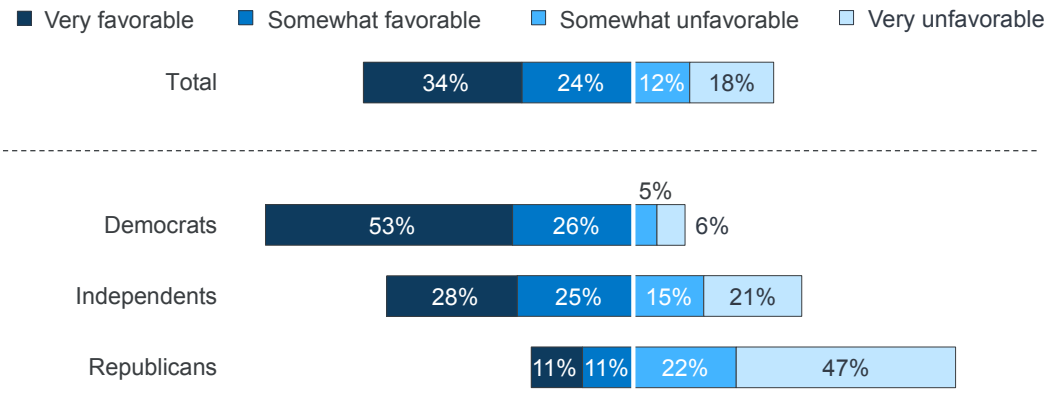
As with national polling, support for single-payer in the state is malleable; support can be pushed as high as 63 percent when opponents are told such a plan would ensure all Californians would have coverage [Figure 21], while opposition can be pushed up to 59 percent when tax increases are mentioned. [Figure 22]

While most Californians (71 percent) believe their family would have to pay more in taxes if a single-payer plan were implemented, nearly half (47 percent) of those ages 18-64 with private insurance incorrectly think they'd be able to keep their current coverage under such a plan. [Figure 23]

Figure 14

Nearly Six In Ten Californians Have A Favorable View Of The Affordable Care Act

Given what you know about the 2010 health reform law, **known commonly as the Affordable Care Act or Obamacare**, do you have a generally favorable or unfavorable opinion of it?

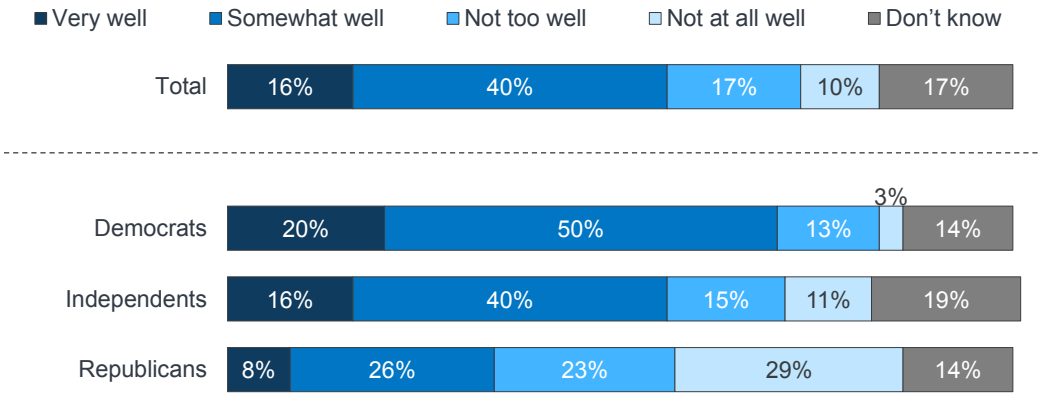


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 15

Most Californians Have Positive Impressions Of How Well Covered California Is Working

How well would you say the health insurance marketplace, called **Covered California**, is working in California?

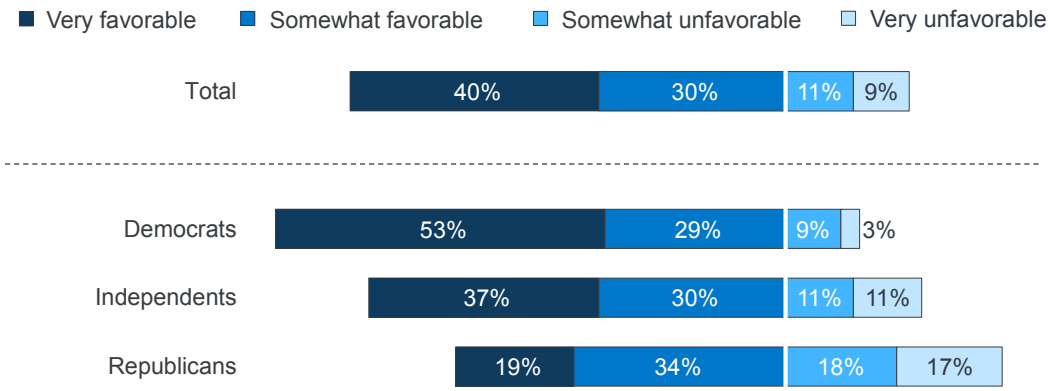


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 16

Most California Residents Have A Favorable View of Medi-Cal

In general, do you have a favorable or an unfavorable opinion of **Medi-Cal**, the government health insurance and long-term care program for low-income adults and children?

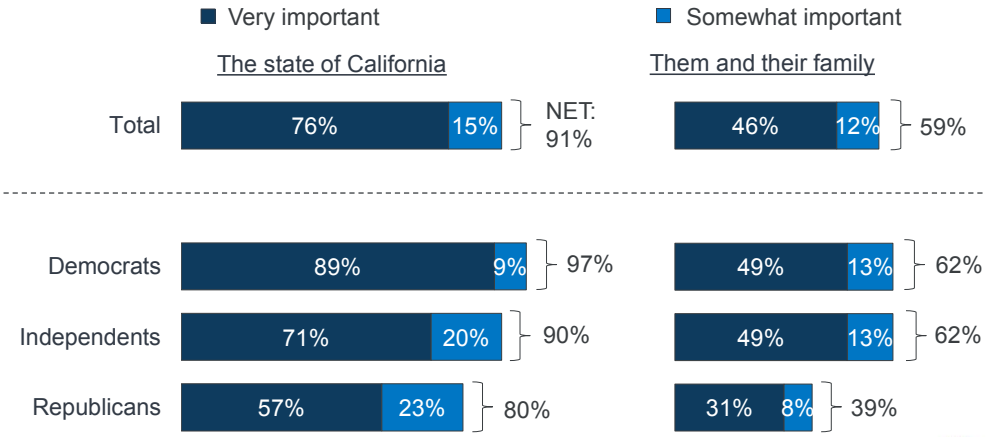


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 17

Across Parties, Strong Majorities Say Medi-Cal Is Important for California, Many Say It Is Important Personally

Percent who say Medi-Cal is **very or somewhat important** for each of the following:

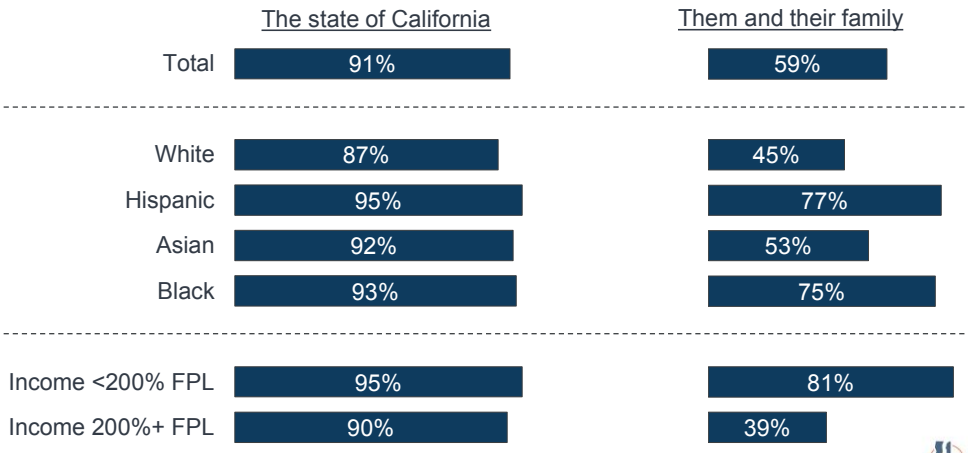


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 18

Blacks, Hispanics, And Low-Income Residents In California Most Likely To Say Medi-Cal Is Important For Their Family

Percent who say Medi-Cal is **very or somewhat important** for each of the following:

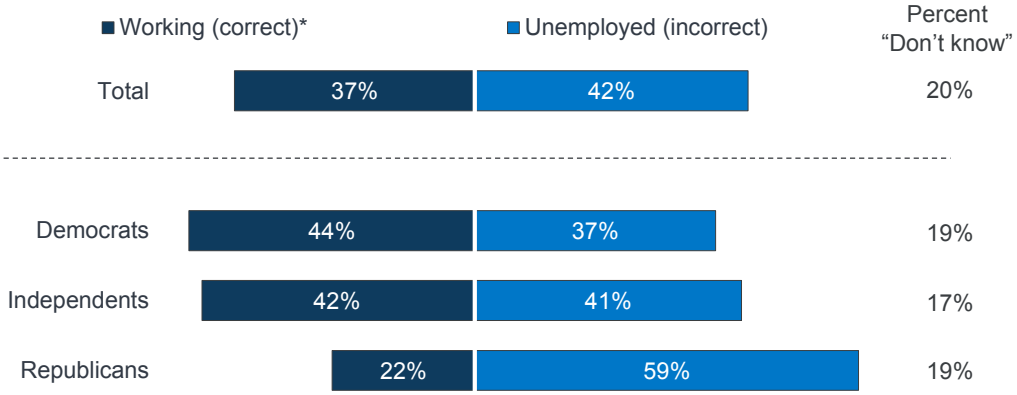


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 19

Californians Hold Misconceptions About Employment Status Of Most Non-disabled Medi-Cal Enrollees

Do you think most working age adults without disabilities who have health insurance through Medi-Cal are working or are most unemployed?

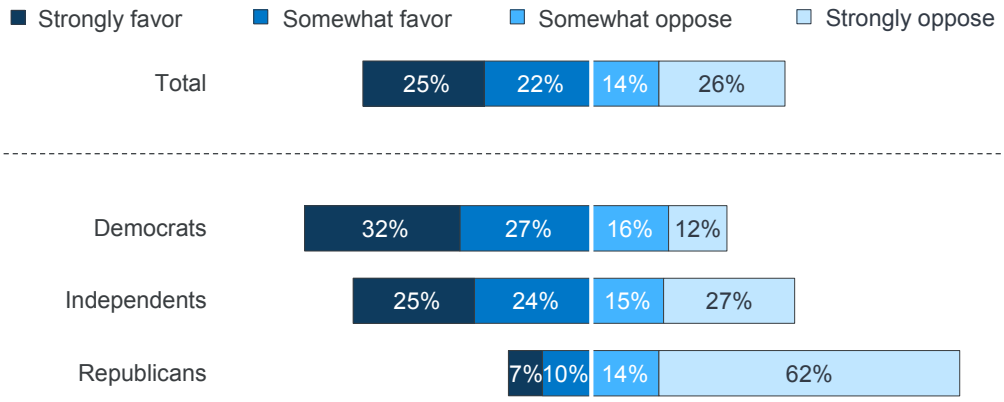


* 62% of non-elderly, non-disabled adults enrolled in Medi-Cal were employed in 2016.
SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 20

Views Of Single Payer In California Are Divided

Do you favor or oppose having a **single-payer health plan** in California, in which all California residents would get their coverage from a single state government plan?



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 21

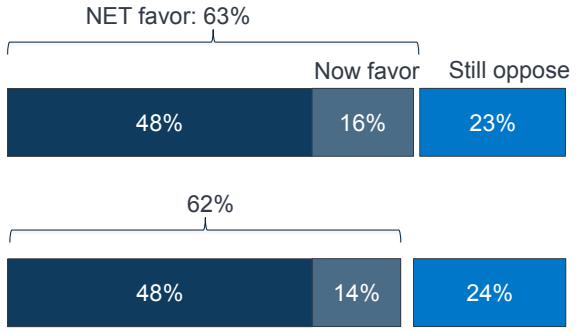
Views On Single-Payer Can Shift When Presented With Messages In Favor

Do you favor or oppose having a single-payer health plan in California?

ASKED OF THE 40% WHO OPPOSE:

What if you heard that supporters say such a plan would **ensure that all Californians have health care coverage**?

What if you heard that supporters say such a plan would **reduce health insurance administrative costs**?



NOTE: White space on bottom charts represent the share who say "don't know" after hearing follow-up message.
SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

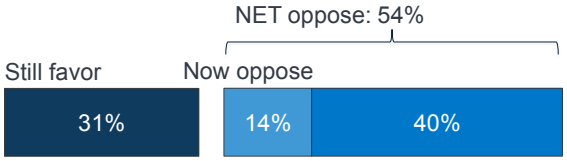
Figure 22

Views On Single-Payer Can Shift When Presented With Messages Opposed

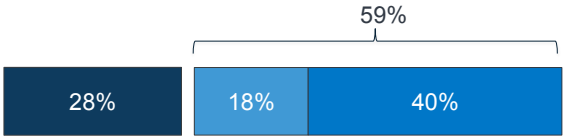
Do you favor or oppose having a single-payer health plan in California?

ASKED OF THE 48% WHO FAVOR:

What if you heard that opponents say such a plan would **give the government more control over health care**?



What if you heard that opponents say such a plan would **require many Californians to pay more in taxes**?



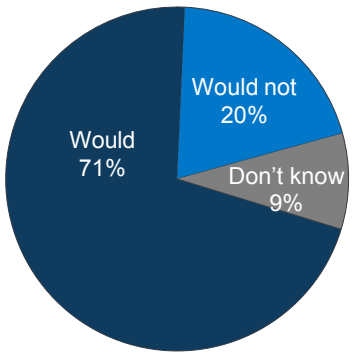
NOTE: White space on bottom charts represent the share who say "don't know" after hearing follow-up message.
SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 23

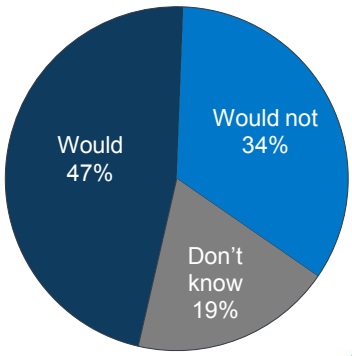
Some Californians Are Unclear On What Single-Payer Would Mean For Them

If a single-payer health plan was put into place in California, do you think you and your family would…?

…have to pay more in taxes to cover the cost of health insurance



…be able to keep your current health insurance (among those ages 18-64 with private insurance)



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Section 4: Access To Providers And Provider Shortages

About three-quarters (77 percent) of Californians say that "making sure there are enough doctors, nurses, and other health care providers across California" should be an important priority for the state government to address, including 38 percent who call it an "extremely important" priority. About a third of California residents say their community doesn't have enough primary care doctors (35 percent) or specialists (33 percent) to serve the needs of local residents, and about a quarter (27 percent) say it doesn't have enough hospitals. [Figure 24]

People who are Black or Hispanic, those with lower incomes, as well as those living in the San Joaquin Valley and the Inland Empire are more likely than their counterparts to say their community lacks adequate numbers of providers. [Figure 25, Figure 26, and Figure 27] These responses are in line with data showing the distribution of both primary and specialty care providers is uneven across the state.[3]

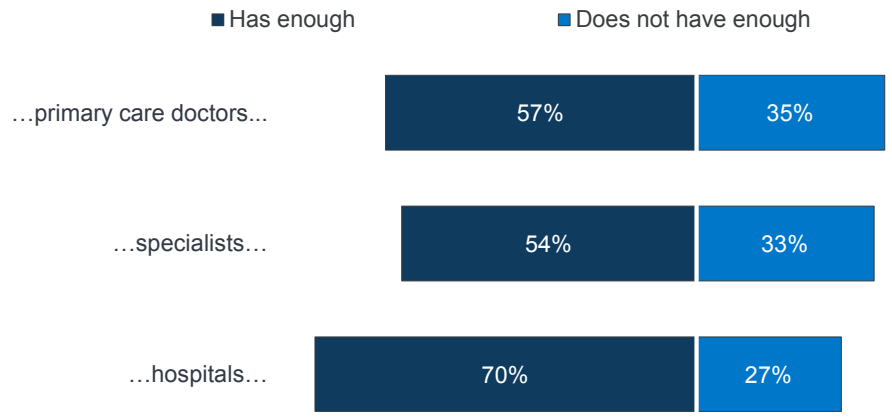
In addition, waiting times for appointments are an issue for some residents, particularly those with lower incomes and those with Medi-Cal coverage. Nearly a quarter (23 percent) of all state residents say there was a time in the past year when they had to wait longer than they thought was reasonable for an appointment for medical care, rising to 33 percent of those with Medi-Cal coverage. [Figure 28]

There is broad support (including across parties) for the state government providing medical and nursing students with scholarships and financial help if they agree to work in areas of the state with provider shortages. [Figure 29]

Figure 24

One-Third Believe Their Community Does Not Have Enough Primary Care Doctors, Specialists To Serve Residents' Needs

Do you think your community has enough … to serve the needs of local residents, or not?

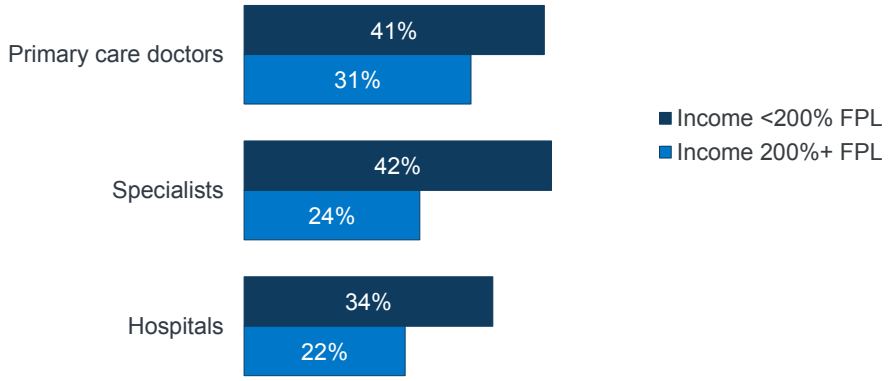


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 25

Those With Lower Incomes More Likely To Feel Their Community Lacks Adequate Numbers Of Providers

Percent who say their community **does not have enough** providers to serve the needs of local residents:

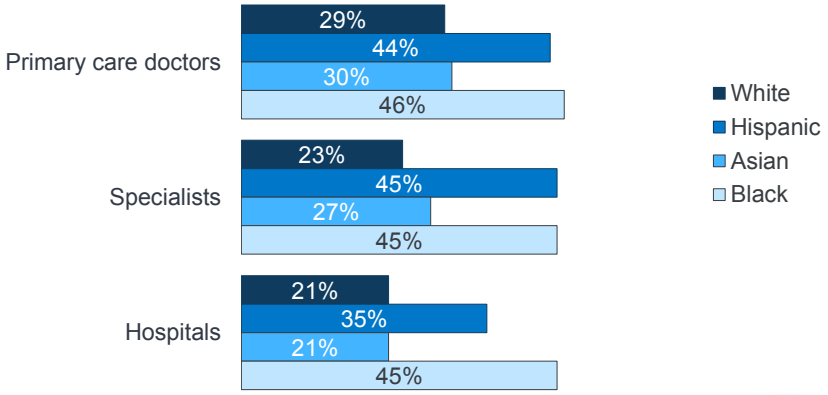


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 26

Black And Hispanic Californians More Likely To Feel Their Community Lacks Adequate Numbers Of Providers

Percent who say their community **does not have enough** providers to serve the needs of local residents:

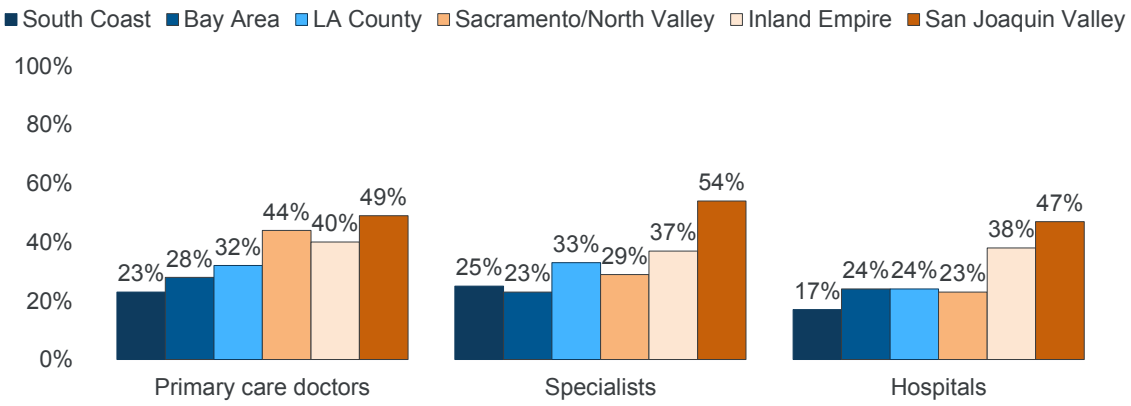


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 27

Residents Of San Joaquin Valley and Inland Empire More Likely to Perceive Lack of Adequate Providers

Percent who say their community **does not have enough** providers to serve the needs of local residents:

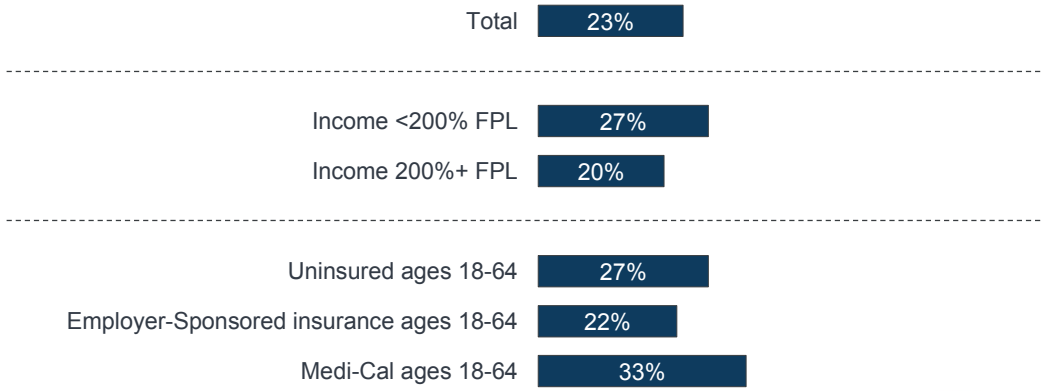


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 28

Some Californians Report Having To Wait Longer Than They Thought Was Reasonable for Medical Care

Percent who say they **have had to wait longer than they thought was reasonable** to get an appointment for **medical care** in the past twelve months:

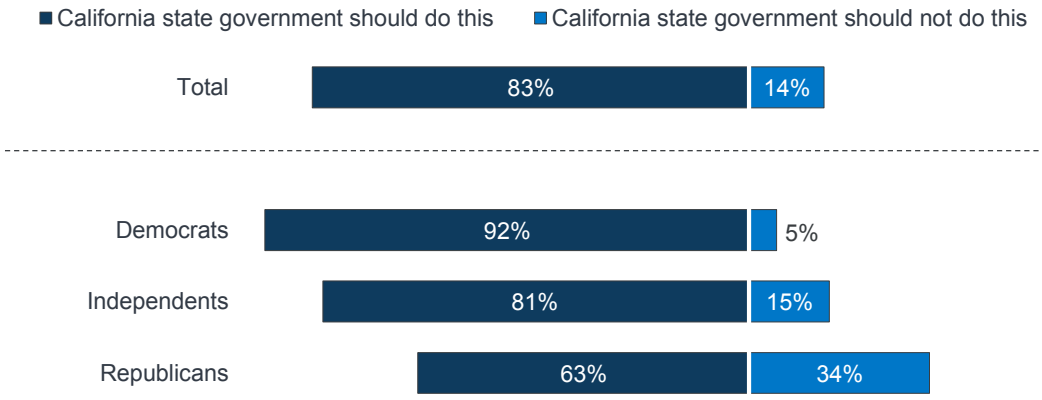


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 29

Across Parties, Majorities Support Medical And Nursing Scholarships And Financial Help To Address Shortages

Do you think the California state government should **provide medical and nursing students with scholarships and financial help** if they agree to work in areas of California that have shortages?



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Section 5: Experiences With Health Care Affordability

As noted above, making health care more affordable ranks second in the public's overall priority list for the incoming administration, just behind improving public education. One reason for this may be people's own experiences affording health care for themselves and their families. For example, one in five California residents (20 percent) reports problems paying medical bills, rising to three in ten among those with a debilitating medical condition (34 percent), those ages 18-64 who are on Medi-Cal (31 percent) or without health insurance (31 percent), and those with self-reported incomes below 200 of the federal poverty level (29 percent). Problems paying medical bills are also more common among California residents who are Black (30 percent) or Hispanic (28 percent) compared with those who are white (16 percent) or Asian (8 percent). [Figure 30]

Many of those struggling to pay medical bills report having to make certain sacrifices to pay off their bills. For example, about seven in ten of those with bill problems report cutting spending on basic household items (72 percent), two-thirds report putting off vacations or major purchases (66 percent), and 61 percent report using up all or most of their savings to pay their medical bills. [Figure 31]

Unexpected medical bills are also a problem for those with insurance. Three in ten non-elderly Californians with health insurance (31 percent) say there was a time in the past year when they received a medical bill they thought was covered, but their insurance did not cover the bill at all or paid less than they expected. About four in ten of this group (12 percent of all insured Californians) say this happened because the provider was not in their plan's network. [Figure 32]

Whether or not they have personally experienced such bills, unexpected medical bills represent a large financial worry for Californians. Nearly two-thirds (63 percent) say they are very or somewhat worried about being able to afford unexpected medical bills, ranking higher than worries about affording out-of-pocket medical costs in general (56 percent), prescription drug costs (42 percent), or health insurance premiums (39 percent of those with insurance). Worries about surprise medical bills outrank worries about affording other basic needs, such as transportation costs (53 percent), housing costs (52 percent), and utilities (47 percent). [Figure 33]

Just a third (34 percent) of those with health insurance are aware that California law (through Assembly Bill No. 72 passed in 2017[4]) prohibits providers from charging out-of-network prices for care received at in-network hospitals. [Figure 34]

Challenges affording care also may lead some Californians to delay or forgo medical treatments or prescription drugs. Over four in ten residents (44 percent) say they or another family member in their household has postponed or skipped care in the past year because of the cost, including skipping dental care or check-ups (30 percent), putting off or postponing getting health care (20 percent), skipping recommended tests or treatments (19 percent), not filling a prescription for medicine (18 percent), cutting pills in half or skipping doses of a medicine (12 percent), or putting off or postponing getting mental health care (10 percent). [Figure 35]

Californians with lower incomes, those without health insurance, and Black and Hispanic residents are more likely than their counterparts to experience problems paying medical bills, postponing or forgoing health care because of the cost, and worries about affording care. For example, those with self-reported incomes below 200% FPL are almost twice as likely as those with higher incomes to report problems paying medical bills in the past year, and much more likely to report skipping or delaying care (55 percent versus 36 percent). They are also almost twice as likely to say they are very worried about affording unexpected medical bills or general out-of-pocket health care costs. [Figure 36]

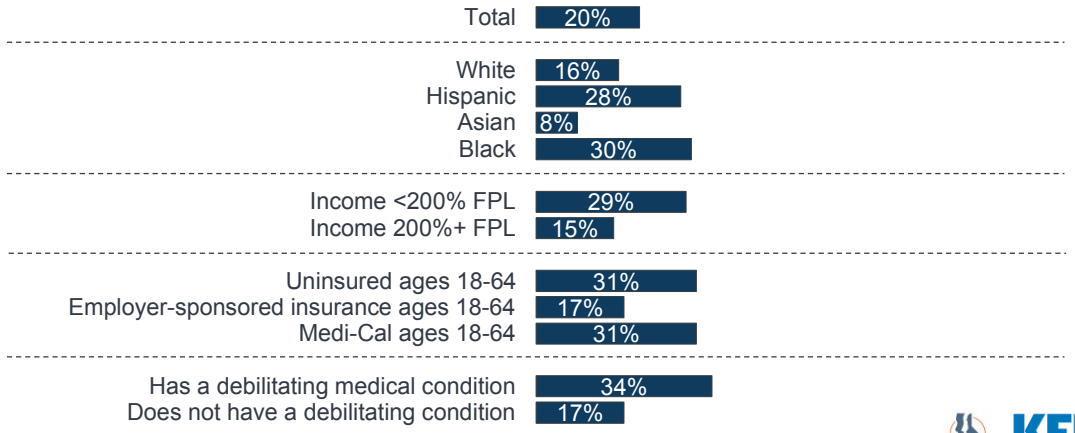
Similarly, uninsured Californians are more likely than those with insurance to report medical bill problems (31 percent versus 21 percent), and to say they are very worried about affording unexpected medical bills (63 percent versus 37 percent) or out-of-pocket costs (56 percent versus 30 percent). [Figure 37]

While numerous public and private initiatives seek to increase cost transparency for individuals, most Californians (62 percent) say it is difficult to find out how much different medical treatments and procedures provided by different doctors and hospitals would cost before they receive them. [Figure 38] As noted above, 76 percent of Californians think it is extremely or very important for the new governor and legislature to work on making information about provider costs more widely available.

Figure 30

1 in 5 California Residents Report Problems Paying Medical Bills For Self Or Family Member In Past Year

Percent who say they or someone in their household had **problems paying or an inability to pay** any medical bills in the past twelve months:

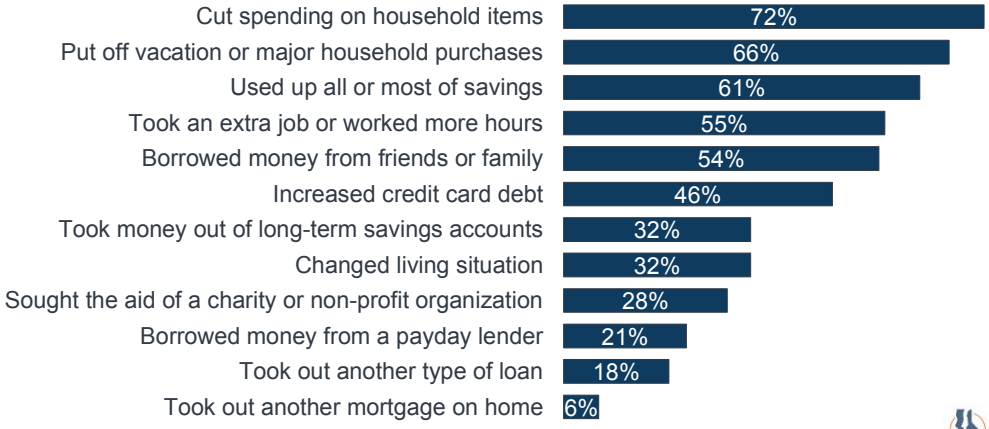


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 31

Many Of Those With Problems Paying Bills Report Cutting Back In Other Areas To Pay Medical Bills

AMONG THE 20% WHO HAD PROBLEMS PAYING MEDICAL BILLS DURING THE PAST YEAR: Percent who say they or someone else in their household **did each of the following in order to pay medical bills**:

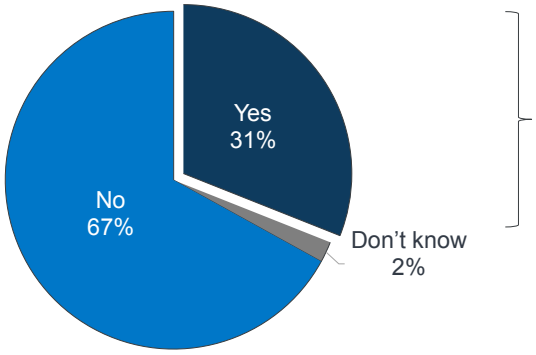


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

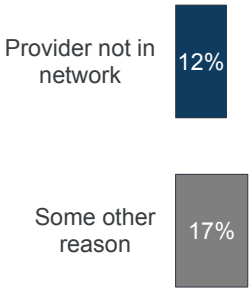
Figure 32

About 3 in 10 Insured California Residents Report Receiving An Unexpected Medical Bill In The Past Year

Was there a time in the past 12 months when you received care you thought was covered, and your health plan did not cover the bill at all, or paid less than you expected?



ASKED OF THE 31% WHO HAD AN UNEXPECTED MEDICAL BILL: Was it because…

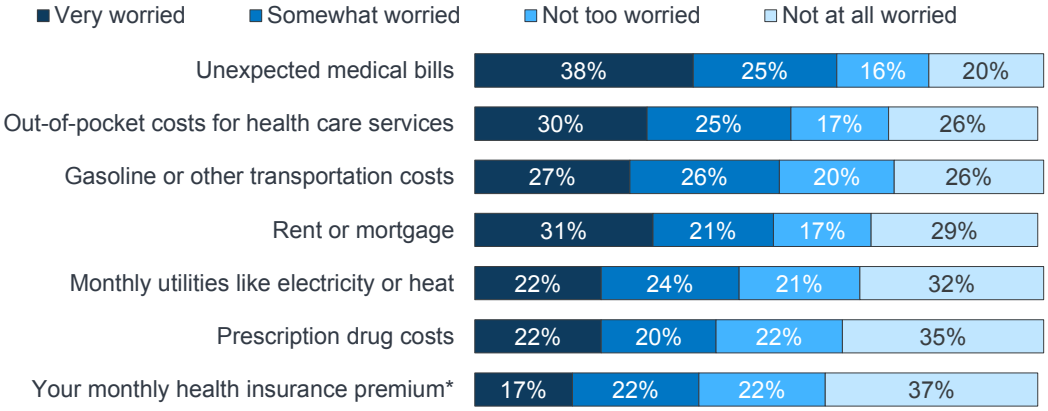


NOTE: Percentages based on adults ages 18-64 with insurance.
SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 33

Unexpected Medical Bills And Out Of Pocket Health Care Costs Rank High On List Of Californians' Affordability Concerns

How **worried** are you about being able to afford each of the following for you and your family?

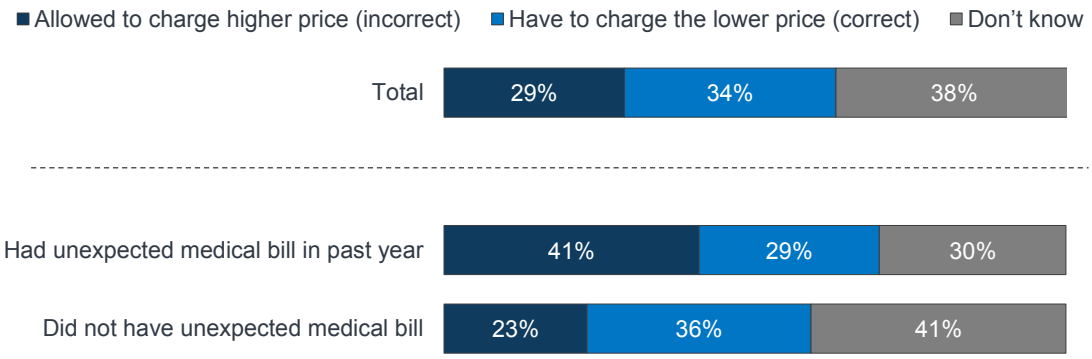


NOTE: *Item asked of those who have insurance.
SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 34

Most Insured Adults Unaware Of Protections Against Out-Of-Network Charges

AMONG THOSE WHO ARE INSURED AND AGES 18-64: If you visit a hospital in California that is in your health plan's network but are treated by an out-of-network provider, is the provider allowed to charge you the higher out-of-network price?

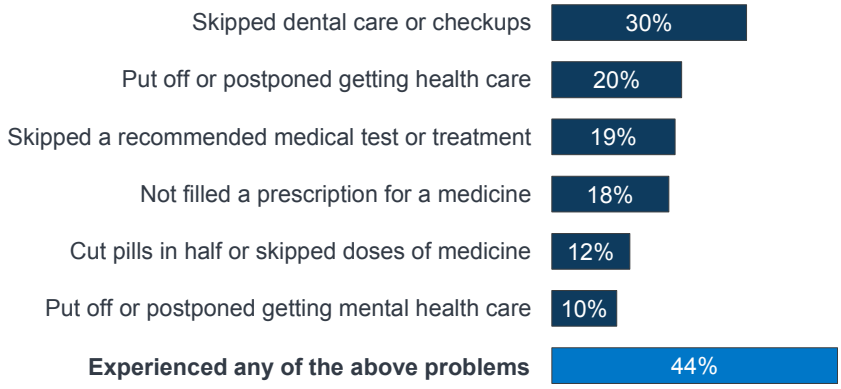


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 35

About 4 In 10 Californians Say They Or A Family Member Have Delayed Or Skipped Care In The Past Year Due To The Cost

Percent who say they or a family member living in their household **have done each of the following** in the past twelve months **because of the cost**:

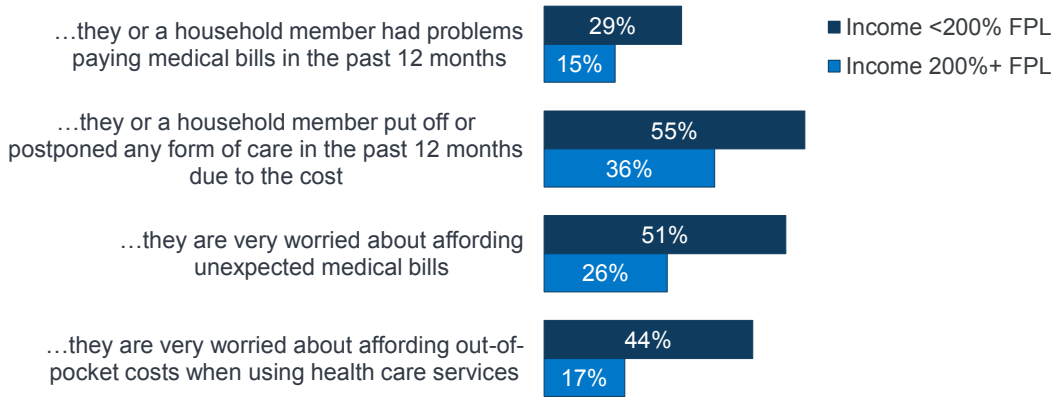


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 36

Lower-Income Californians More Likely To Report Problems And Worries With Health Care Affordability

Percent who say…

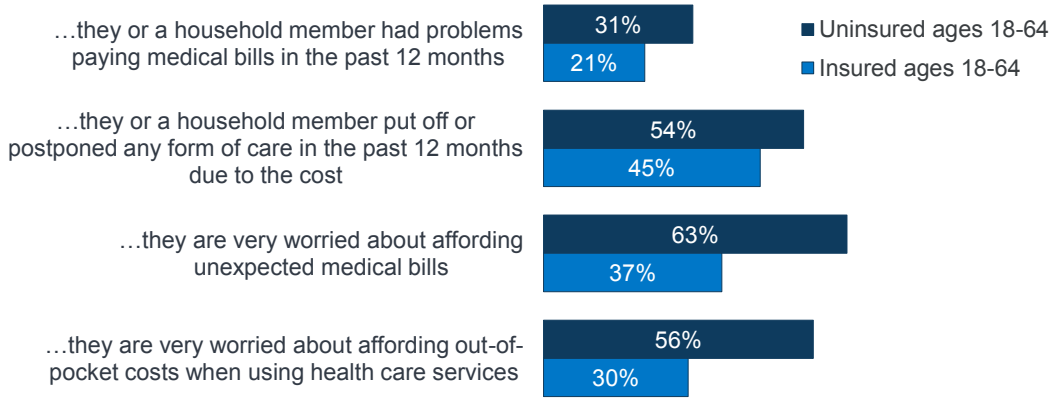


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 37

Uninsured Californians More Likely To Report Problems And Worries With Health Care Affordability

Percent who say…

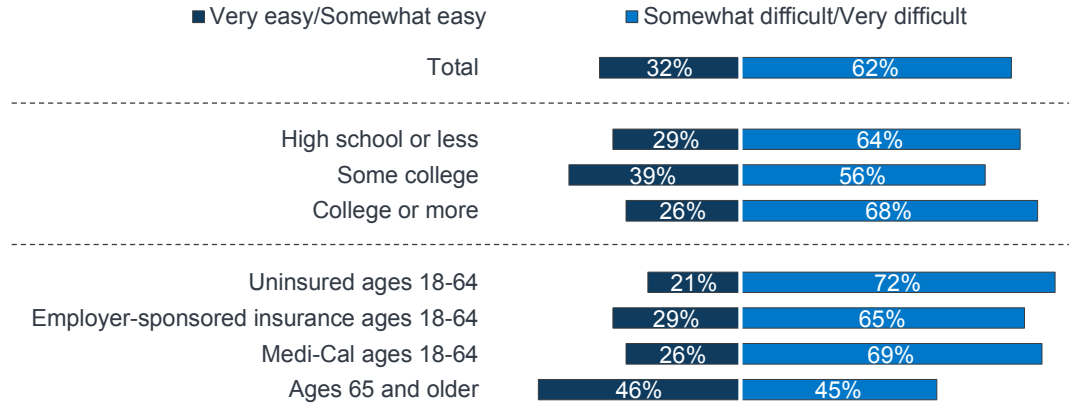


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 38

Most Californians Say Information About Prices Of Medical Treatments And Procedures Is Hard To Find

In general, how easy or difficult would you say it is to **find out how much medical treatments and procedures provided by different doctors or hospitals would cost you** before you receive them?



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Section 6: Experiences Of The Uninsured

Half of the non-elderly uninsured in California say they've been without insurance for 2 years or more. The main reason they report being without insurance is that it's too expensive or they can't afford it (31 percent), followed by employment-related reasons (10 percent). [Figure 39]

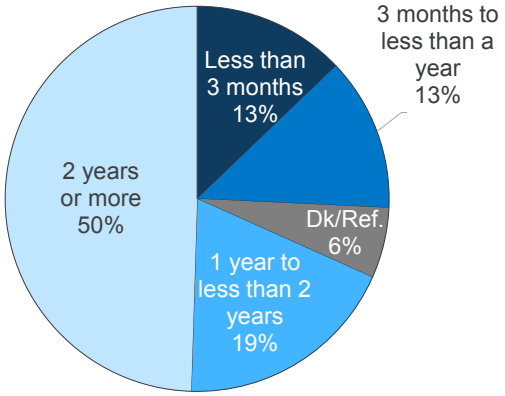
Worries about exposing their own or someone else's immigration status may also prevent some uninsured Californians from seeking coverage. Four in ten of those without insurance say they are worried that if they signed up for health insurance, they would draw attention to their own or a family member's immigration status. This includes three in ten who say they are "very worried" and another one in ten who say they are "somewhat" worried. [Figure 40]

Figure 39

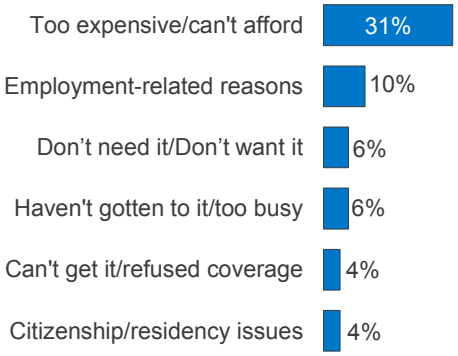
Cost Is The Biggest Barrier To Getting Insurance For The Uninsured

AMONG THOSE WHO ARE UNINSURED AND AGES 18-64:

How long have you been uninsured?



What's the main reason you do not currently have heath insurance? (*open-end*)

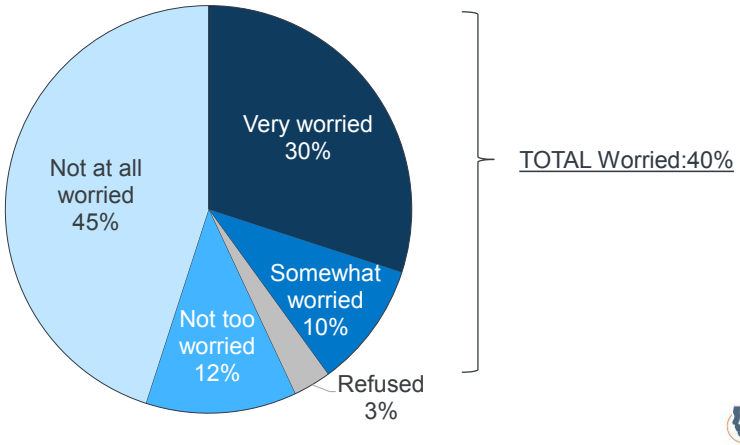


SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Figure 40

Worries About Immigration Status May Keep Some Uninsured Californians From Seeking Health Insurance

AMONG THOSE WHO ARE UNINSURED AND AGES 18-64: How **worried** are you that if you sign up for health insurance you will draw attention to your or a family member's immigration status?



SOURCE: KFF/CHCF California Heath Policy Survey (Nov 12-Dec 27, 2018). See topline for full question wording and response options.

Appendix A: Survey Methodology

The Kaiser Family Foundation/California Health Care Foundation California Health Policy Survey was conducted by telephone November 12 – December 27, 2018 among a random representative sample of 1,404 adults age 18 and older living in the state of California (note: persons without a telephone could not be included in the random selection process). Interviews were administered in English and Spanish, combining random samples of both landline (476) and cellular telephones (928, including 668 who had no landline telephone). Sampling, data collection, weighting and tabulation were managed by SSRS in close collaboration with Kaiser Family Foundation and California Health Care Foundation researchers. The California Health Care Foundation paid for the costs of the survey fieldwork, and Kaiser Family Foundation contributed the time of its research staff. Both partners worked together to design the survey and analyze the results.

The sampling and screening procedures were designed to increase the number of Black and Asian-American respondents and low-income respondents, including those who have health insurance through Medi-Cal or who are uninsured. This oversample allowed for sufficient numbers of respondents in these subgroups to report their results separately; weighting adjustments were made to adjust their proportions to represent their actual shares of the population in overall results (see weighting description below). The sample included 463 respondents who were reached by calling back respondents in California who had previously completed an interview on either the SSRS Omnibus poll or the Kaiser Health Tracking Polls and indicated they fit one of the oversample criteria (Black, Asian, or low-income respondents, including low-income respondents with Medi-Cal or who are uninsured, and are living in California). It also included 46 respondents with prepaid (or pay-as-you-go) cell phone numbers in California, a group that is disproportionately lower-income.

The dual frame cellular and landline phone sample was generated by Marketing Systems Group (MSG) using random digit dial (RDD) procedures. The RDD frames were stratified by income-level in order to reach more low-income respondents. To address the fact that some qualifying respondents could be reached only by their cell-phone but had an out-of-state phone number, the sample was augmented with a sample of phone numbers outside of California associated with a billing address that indicated in-state residence (n=89). Survey Sampling International (SSI) generated these numbers randomly using Smart Cell sample. All respondents were screened to verify that they resided in California. For the landline sample, respondents were selected by asking for the youngest adult male or female currently at home based on a random rotation. If no one of that gender was available, interviewers asked to speak with the youngest adult of the opposite gender. For the cell phone sample, interviews were conducted with the qualifying adult who answered the phone.

A multi-stage weighting design was applied to ensure an accurate representation of the California adult population. The first stage of weighting involved corrections for sample design, including accounting for the components, the likelihood of non-response for the re-contacted sample, and an adjustment to account for the fact that respondents with both a landline and cell phone have a higher probability of selection. In the second weighting stage, demographic adjustments were applied, at first, to the RDD and Smart Cell sample to account for systematic non-response along known population parameters.

Population parameters included gender, age, race, Hispanic ethnicity (broken down by nativity), educational attainment, phone status (cell phone only or reachable by landline), and state region. Demographic parameters were based on estimates from the U.S. Census Bureau's March 2017 American Community Survey (ACS), and telephone use was based on data for California from the 2016 National Health Interview Survey. Based on this second stage of weighting, estimates were derived for self-reported income as a percentage of the federal poverty level (less than 200%, 200% or higher) by insurance status (Medi-Cal, uninsured, all else) in the California population. The last stage of weighting included all respondents and used poverty level by insurance status, based on the previous stage's outcomes, as an additional weighting parameter.

The margin of sampling error including the design effect for the full sample is plus or minus 3 percentage points. For results based on subgroups, the margin of sampling error may be higher. Sample sizes and margins of sampling error for subgroups are available by request. Note that sampling error is only one of many potential sources of error in this or any other public opinion poll. Kaiser Family Foundation public opinion and survey research is a charter member of the Transparency Initiative of the American Association for Public Opinion Research.

California regions analyzed in this report are defined as follows:

- **Los Angeles County**
- **South Coast**: San Diego and Orange Counties
- **Inland Empire**: Riverside and San Bernadino Counties
- **San Joaquin Valley**: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern Counties
- **Sacramento/North Valley**: Shasta, Tehama, Glenn, Butte, Colusa, Yuba, Placer, Sutter, Yolo, El Dorado, and Sacramento Counties
- **San Francisco Bay Area**: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Sonoma, and Solano Counties

Appendix B: Demographic Tables

Results of some key survey questions for various demographic subgroups are provided in the tables below:

B.1: Tables By Race And Income

Table B.1.1: Availability Of Health Care Providers In The Community

Do you think your community has enough _____ to serve the needs of local residents, or not?	Total	Race/Ethnicity				Self-reported Income (% of FPL)			
						Total		Among Employed	
		White	Hisp.	Asian	Black	<200%	200%+	<200%	200%+
Hospitals									
Enough	70%	74%	63%	77%	54%	63%	74%	64%	75%
Not enough	27	21	35	21	45	34	22	33	22
Don’t know	3	5	3	2	1	3	4	3	3
Primary care doctors									
Enough	57%	61%	50%	64%	47%	52%	61%	49%	64%
Not enough	35	29	44	30	46	41	31	42	29
Don’t know	7	10	5	7	7	7	8	9	7
Specialists									
Enough	54%	60%	45%	61%	45%	46%	61%	45%	62%
Not enough	33	23	45	27	45	42	24	42	23
Don’t know	13	17	10	12	10	12	14	13	14
Mental health care providers									
Enough	27%	26%	26%	30%	19%	30%	25%	27%	26%
Not enough	52	49	57	42	75	56	51	57	49
Don’t know	21	24	17	28	6	15	24	16	24

Table B.1.2: Importance Of Medi-Cal To State And Family									
How important is Medi-Cal for _____?	Total	Race/Ethnicity				Self-reported Income (% of FPL)			
						Total		Among Employed	
		White	Hisp.	Asian	Black	<200%	200%+	<200%	200%+
The state of California									
Very important	76%	69%	88%	67%	87%	84%	70%	84%	70%
Somewhat important	15	18	7	25	6	10	20	11	19
Not too important	3	4	2	4	2	2	3	2	4
Not at all important	3	3	2	2	4	2	3	2	3
You and your family									
Very important	46%	33%	66%	33%	63%	69%	25%	63%	23%
Somewhat important	12	12	10	20	12	11	14	14	15
Not too important	12	15	7	18	9	7	17	10	18
Not at all important	26	37	12	29	16	11	41	11	41

Table B.1.3: Worries About Affording Health Care									
How worried, if at all, are you about being able to afford _____ for you and your family? **% who said "very worried"**:	Total	Race/Ethnicity				Self-reported Income (% of FPL)			
						Total		Among Employed	
		White	Hisp.	Asian	Black	<200%	200%+	<200%	200%+
Your monthly health insurance premium*	17%	10%	27%	16%	20%	26%	10%	22%	10%
Out-of-pocket costs when using health care services	30	20	47	22	27	44	17	40	19
Prescription drug costs	22	13	37	10	16	33	11	32	10
Rent or mortgage	31	19	47	25	31	48	16	48	17
Gasoline or other transportation costs	27	20	40	11	35	41	13	38	14
Monthly utilities like electricity or heat	22	14	35	15	29	36	9	31	9
Unexpected medical bills	38	26	53	39	29	51	26	52	27

NOTE: *Item was asked among those who have insurance.

Table B.1.4: Problems Affording Care Because Of Cost									
In the past 12 months, have you or another family member living in your household _____ because of the cost, or not? **% who said yes:**	Total	Race/Ethnicity				Self-reported Income (% of FPL)			
						Total		Among Employed	
		White	Hisp.	Asian	Black	<200%	200%+	<200%	200%+
Skipped a recommended medical test or treatment	19%	17%	20%	15%	21%	24%	15%	26%	16%
Not filled a prescription for a medicine	18	14	22	13	17	24	13	21	14
Cut pills in half or skipped doses of medicine	12	10	15	6	18	18	7	17	7
Put off or postponed getting mental health care	10	11	12	3	9	16	7	19	7
Put off or postponed getting health care	20	19	21	19	16	28	16	29	19
Skipped dental care or checkups	30	30	32	22	28	40	23	42	24
Experienced any of the above	**44**	**43**	**46**	**41**	**39**	**55**	**36**	**56**	**38**

Table B.1.5: Problems Paying Medical Bills									
In the past 12 months, did you or anyone in your household have problems paying or an inability to pay any medical bills, such as bills for doctors, dentists, medication, or home care?	Total	Race/Ethnicity				Self-reported Income (% of FPL)			
						Total		Among Employed	
		White	Hisp.	Asian	Black	<200%	200%+	<200%	200%+
% who said yes:	20%	16%	28%	8%	30%	29%	15%	30%	15%

B.2: Tables By Region

Table B.2.1: Availability Of Health Care Providers In The Community							
Do you think your community has enough _____ to serve the needs of local residents, or not?	Total	California Region					
		South Coast	Bay Area	LA County	Sacramento/ North Valley	Inland Empire	San Joaquin Valley
Hospitals							
Enough	70%	81%	73%	72%	76%	54%	51%
Not enough	27	17	24	24	23	38	47
Don't know	3	2	3	3	1	7	2
Primary care doctors							
Enough	57%	71%	60%	61%	46%	53%	46%
Not enough	35	23	28	32	44	40	49
Don't know	7	6	11	6	10	7	5
Specialists							
Enough	54%	64%	59%	53%	60%	50%	36%
Not enough	33	25	23	33	29	37	54
Don't know	13	11	18	13	12	13	10
Mental health care providers							
Enough	27%	37%	22%	28%	20%	29%	25%
Not enough	52	40	46	58	54	53	56
Don't know	21	22	32	14	25	18	18

Table B.2.2: Importance Of Medi-Cal To State And Family							
How important is Medi-Cal for _____?	Total	California Region					
		South Coast	Bay Area	LA County	Sacramento/ North Valley	Inland Empire	San Joaquin Valley
The state of California							
Very important	76%	67%	78%	77%	78%	71%	84%
Somewhat important	15	19	16	14	15	19	9
Not too important	3	5	3	3	2	2	4
Not at all important	3	5	2	2	3	5	1
You and your family							
Very important	46%	36%	43%	47%	48%	44%	69%
Somewhat important	12	14	12	10	12	18	12
Not too important	12	13	15	15	13	8	6
Not at all important	26	37	28	25	24	23	12

Table B.2.3: Worries About Affording Health Care							
How worried, if at all, are you about being able to afford _____ for you and your family? **% who said "very worried":**	Total	California Region					
		South Coast	Bay Area	LA County	Sacramento/ North Valley	Inland Empire	San Joaquin Valley
Your monthly health insurance premium*	17%	12%	14%	17%	16%	20%	31%
Out-of-pocket costs when using health care services	30	26	22	34	22	31	48
Prescription drug costs	22	16	20	23	17	23	32
Rent or mortgage	31	24	25	37	26	30	42
Gasoline or other transportation costs	27	24	15	29	24	32	41
Monthly utilities like electricity or heat	22	18	17	19	23	26	40
Unexpected medical bills	38	32	31	38	33	44	49

NOTE: *Item was asked among those who have insurance.

Table B.2.4: Problems Affording Care Because Of Cost							
In the past 12 months, have you or another family member living in your household _____ because of the cost, or not? **% who said yes:**	Total	**California Region**					
		South Coast	Bay Area	LA County	Sacramento/ North Valley	Inland Empire	San Joaquin Valley
Skipped a recommended medical test or treatment	19%	15%	14%	21%	21%	24%	21%
Not filled a prescription for a medicine	18	17	14	20	23	16	19
Cut pills in half or skipped doses of medicine	12	9	6	14	11	15	19
Put off or postponed getting mental health care	10	7	8	12	8	11	10
Put off or postponed getting health care	20	19	17	22	19	19	21
Skipped dental care or checkups	30	28	23	31	30	33	39
Experienced any of the above	**44**	**41**	**39**	**46**	**42**	**47**	**49**

Table B.2.5: Problems Paying Medical Bills							
In the past 12 months, did you or anyone in your household have problems paying or an inability to pay any medical bills, such as bills for doctors, dentists, medication, or home care?	Total	**California Region**					
		South Coast	Bay Area	LA County	Sacramento/ North Valley	Inland Empire	San Joaquin Valley
% who said yes:	20%	15%	12%	24%	26%	22%	27%

B.3. Tables By Insurance Status Ages 18-64

Table B.3.1: Availability Of Health Care Providers In The Community					
Do you think your community has enough _____ to serve the needs of local residents, or not?	Total	Insurance Status (Ages 18-64)		Insurance Type (Ages 18-64)	
		Insured	Uninsured	Employer-Sponsored	Medi-Cal
Hospitals					
Enough	70%	70%	63%	75%	57%
Not enough	27	26	35	21	40
Don't know	3	4	3	4	3
Primary care doctors					
Enough	57%	60%	46%	65%	47%
Not enough	35	33	43	27	46
Don't know	7	7	10	7	7
Specialists					
Enough	54%	56%	43%	61%	47%
Not enough	33	31	39	25	42
Don't know	13	12	16	14	11
Mental health care providers					
Enough	27%	28%	31%	26%	27%
Not enough	52	51	52	49	58
Don't know	21	21	16	25	15

Table B.3.2: Importance Of Medi-Cal To State And Family					
How important is Medi-Cal for _____?	Total	Insurance Status (Ages 18-64)		Insurance Type (Ages 18-64)	
		Insured	Uninsured	Employer-Sponsored	Medi-Cal
The state of California					
Very important	76%	77%	80%	72%	91%
Somewhat important	15	15	10	18	7
Not too important	3	2	3	4	1
Not at all important	3	3	5	3	1
You and your family					
Very important	46%	46%	63%	29%	91
Somewhat important	12	13	14	15	5
Not too important	12	14	8	20	1
Not at all important	26	25	10	33	2

Table B.3.3: Worries About Affording Health Care					
How worried, if at all, are you about being able to afford _____ for you and your family? **% who said "very worried":**	Total	Insurance Status (Ages 18-64)		Insurance Type (Ages 18-64)	
		Insured	Uninsured	Employer-Sponsored	Medi-Cal
Your monthly health insurance premium*	17%	18%	N/A	15%	21%
Out-of-pocket costs when using health care services	30	30	56	23	44
Prescription drug costs	22	19	45	14	32
Rent or mortgage	31	31	48	25	46
Gasoline or other transportation costs	27	24	39	18	39
Monthly utilities like electricity or heat	22	20	36	12	37
Unexpected medical bills	38	37	63	32	48

NOTE: *Item was asked among those who have insurance.

Table B.3.4: Problems Affording Care Because Of Cost					
In the past 12 months, have you or another family member living in your household _____ because of the cost, or not? **% who said yes:**	Total	**Insurance Status (Ages 18-64)**		**Insurance Type (Ages 18-64)**	
		Insured	Uninsured	Employer-Sponsored	Medi-Cal
Skipped a recommended medical test or treatment	19%	19%	30%	16%	26%
Not filled a prescription for a medicine	18	17	28	13	30
Cut pills in half or skipped doses of medicine	12	12	17	8	21
Put off or postponed getting mental health care	10	10	18	8	14
Put off or postponed getting health care	20	20	32	17	27
Skipped dental care or checkups	30	30	41	23	43
Experienced any of the above	**44**	**45**	**54**	**38**	**57**

Table B.3.5: Problems Paying Medical Bills					
In the past 12 months, did you or anyone in your household have problems paying or an inability to pay any medical bills, such as bills for doctors, dentists, medication, or home care?	Total	**Insurance Status (Ages 18-64)**		**Insurance Type (Ages 18-64)**	
		Insured	Uninsured	Employer-Sponsored	Medi-Cal
% who said yes:	20%	21%	31%	17%	31%

Endnotes

[1] Centers for Medicare & Medicaid Services, The Mental Health Parity and Addiction Equity Act (MHPAEA, Accessed January 16, 2019.https://www.cms.gov/cciio/programs-and-initiatives/other-insurance-protections/mhpaea_factsheet.html

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The Impact of the Affordable Care Act: Evidence from California's Hospital Sector
Mark Duggan, Atul Gupta, and Emilie Jackson
NBER Working Paper No. 25488
January 2019
JEL No. H51,I13,L33

ABSTRACT

The Affordable Care Act (ACA) authorized the largest expansion of public health insurance in the U.S. since the mid-1960s. We exploit ACA-induced changes in the discontinuity in coverage at age 65 using a regression discontinuity based design to examine effects of the expansion on health insurance coverage, hospital use, and patient health. We then link these changes to effects on hospital finances. We show that a substantial share of the federally-funded Medicaid expansion substituted for existing locally-funded safety net programs. Despite this offset, the expansion produced a substantial increase in hospital revenue and profitability, with larger gains for government hospitals. On the benefits side, we do not detect significant improvements in patient health, although the expansion led to substantially greater hospital and emergency room use, and a reallocation of care from public to private and better-quality hospitals.

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I. INTRODUCTION

The 2010 Patient Protection and Affordable Care Act (ACA) led to the largest expansion of publicly funded health insurance coverage since the introduction of Medicare and Medicaid more than fifty years ago. The main provisions of this legislation took effect in January 2014. In states that elected to expand their Medicaid programs as allowed for by the ACA, individuals with family incomes at or below 138 percent of the federal poverty line and without another source of coverage could enroll in the means-tested Medicaid program. Those with incomes above this threshold and without another source of coverage could sign up for private health insurance coverage in ACA exchanges. Exchange enrollees could qualify for federal subsidies to purchase health insurance if their family incomes were below 400 percent of the federal poverty line. From 2010 to 2017, the number of Medicaid recipients nationally rose from 54 million to 72 million while the number with coverage in the ACA exchanges increased from 0 to 12 million (CMS, 2018).

This intervention offers a unique opportunity to examine the effects of a large expansion of public health insurance in a modern setting. We focus on the state of California, which was one of 25 states that elected to expand Medicaid in January 2014.[1] We analyze the effects of the ACA-induced expansion in health insurance coverage through the lens of the hospital sector in California, using data on the universe of hospital stays and emergency room (ER) visits in the state as well as detailed data on hospital finances from 2008 through 2016. During this period, Medicaid enrollment in the state increased from approximately 8 million to more than 13 million while Medicaid spending more than doubled from $40 billion to $100 billion (Taylor, 2017). Additionally, nearly 1.4 million Californians obtained their health insurance through the state's ACA health insurance exchange (known as Covered California) in 2016, the final year of our study period.

We use a novel empirical approach that exploits the pre-existing discontinuity in health insurance coverage at age 65 due to the discrete onset of eligibility for Medicare.[2] This phenomenon has been used by other studies as a quasi-random insurance coverage experiment to examine the effects of Medicare (Card et al. 2008; 2009). The ACA substantially expanded the Medicaid eligibility criteria for non-elderly individuals in California, leading to a large increase in Medicaid coverage for those under the age of 65, as shown in Figure 1a, which plots the fraction of individuals at each age with Medicaid coverage in each year from 2011 through 2016. Because Medicaid eligibility criteria were already fairly broad for those under age 21, the effect on Medicaid coverage was greatest for those aged 21 to 64.

[1] 25 states, including Washington, D.C., expanded their Medicaid programs in January 2014. In the five years since January 2014, an additional 12 states have expanded or are in the process of expanding Medicaid as called for in the ACA. Many of the remaining 14 states are actively considering an expansion.

[2] A small share of individuals who are eligible for Medicaid at age 64 retain Medicaid coverage post-65 because they are eligible for both Medicaid and Medicare. Medicare is the primary insurer in these cases.

The Medicaid expansion, together with the introduction of publicly subsidized private insurance through the ACA exchanges, caused a sharp decrease in the discontinuity at age 65, as Figure 1b demonstrates. Our estimation approach compares the pre-post change in outcomes of interest for patients aged 64 (or younger) who experienced an increase in coverage, relative to those 65 and older whose insurance coverage remained unchanged through this entire period. This regression discontinuity differences-in-differences (RD-DD) approach estimates local average treatment effects most relevant for near-elderly individuals. Hence, we also present a companion set of results using the sample of all patients aged 21 to 64, in which we exploit pre-ACA variation in the share potentially eligible for Medicaid across geographic markets. Also, to address potential concerns about spurious trends, we present results from a falsification exercise assuming a placebo expansion in 2010, as well as from event studies for all outcomes of interest. Reassuringly, these results indicate no pre-existing trends that would bias our results.

We begin by examining the changes in health insurance coverage. First, we find no evidence of a net increase in private coverage among eligible hospitalized patients, which implies that most obtaining health insurance through the ACA exchanges would have had coverage through another source. We estimate an increase of 4-6 percentage points in any form of health insurance, which is driven entirely by the Medicaid expansion. In fact, our RD-DD results indicate minor crowd out of private coverage among patients in their early 60s. Second, we find that about half of the Medicaid expansion replaced county safety-net programs that previously would pay for hospital care for eligible uninsured low-income patients. Since the Medicaid expansion was financed almost entirely by the federal government, this represented a shift in financing responsibility from local taxpayers to federal taxpayers. Results from the analysis leveraging variation across geographic areas for all adults aged 21 to 64 are strikingly similar to those for 64- and 65-year-old patients, indicating that these are robustly estimated and capture the effects for younger adults as well. Taken together, our results imply that for every 10 individuals newly enrolling in Medicaid as a result of the ACA, the number with health insurance increased by approximately 8.

To estimate the effect of these coverage changes on hospital finances, we utilize annual, hospital-level financial data. Our results reveal that Medicaid reimbursed hospitals at approximately twice the level as the pre-existing county safety net programs. Hence, the replacement of county programs with Medicaid coverage benefited both local taxpayers as well as hospitals providing this care. Since government owned hospitals disproportionately bore the burden of caring for uninsured low-income patients, they were also the primary beneficiaries of this transfer from federal taxpayers. We estimate that the average government hospital received nearly a 20% increase in total revenue per bed due to the Medicaid expansion, while the corresponding estimate for private hospitals was 8%. This increase was driven entirely by higher average reimbursements rather than by additional volume. In fact, government hospitals actually lost some of their patient volume to private hospitals, which moderated the increase in their total revenues. Hospitals also

reported greater profitability – an average gain of 4 percentage points in their operating margins. Our estimates imply that this increase in operating margin – when converted to dollars – is about 70% as large as the estimated increase in Medicaid revenue. Hospitals do not seem to be deploying this income toward greater capital spending or expanding bed capacity, at least in the short run.

This largely federally-financed windfall for hospitals and other health care providers represents the cost of the Medicaid expansion.[3] To understand the benefits to consumers, we explore changes in utilization of care and in patient health outcomes. A decrease in patient cost sharing may spur greater use of health care (moral hazard) while improved access to preventative and outpatient care may decrease the need for hospital care. This has been referred to as the access vs. efficiency tradeoff (Dafny and Gruber, 2005). We find that the access effect dominates, with a net increase of 4-6% in hospital stays and arrivals at ERs on average. In contrast to evidence from the Massachusetts reform (Kolstad and Kowalski, 2012; Miller, 2012) – and contradicting a key argument for the insurance expansion – we find a robust, statistically significant increase in ER volume. Our reduced form estimate of the resulting increase in hospital stays implies a marginal effect three times as large as corresponding estimates from the Oregon experiment (Finkelstein et al., 2012).[4] This highlights the potentially large magnitude of general equilibrium effects even in the short term, likely through supply side responses by hospitals and physicians to the Medicaid expansion and higher reimbursement.

Notwithstanding the above increase in hospital care, we fail to reject the null of no effect on patient health. Our primary metric of health is in-hospital mortality, and we focus on the subset of patients discharged with acute, emergent conditions such as Heart attack and Pneumonia to circumvent selection concerns. The point estimates indicate that in-hospital mortality has declined meaningfully post-ACA, however they are imprecisely estimated. A likely channel for improved health is reallocation of patient care to privately-owned and better-quality hospitals. Pre-ACA, 65-year-olds were significantly more likely than 64-year-olds to receive care at privately-owned and better-quality hospitals. But this gap declined by 60% on both dimensions post-ACA. We interpret this shift to be demand-driven, since we find a similar magnitude of switching in ER use, which is less likely to be influenced by insurer networks.

Our analysis has three key limitations. First, our results reflect the experience of a specific state that expanded Medicaid, and more liberally than on average. Second, we cannot observe health care delivered outside of the hospital. This precludes testing for improvements in access to preventative and

[3] The ACA did influence hospital reimbursement on other dimensions. For example, the ACA reduced the growth rate of Medicare reimbursement rates and intended to reduce the disproportionate share (DSH) program which differentially aided hospitals serving many low-income patients. However, Congress repeatedly delayed the cuts to DSH spending. The DSH cuts are currently set to begin in fiscal year 2020. More details available at https://cbcny.org/research/dsh-cuts-delayed.

[4] The Oregon experiment was negligibly small compared to the Medicaid expansion in California under the ACA (10,000 vs. ~5 million new enrollees). We interpret their IV results as estimating partial equilibrium effects on individual consumption of care upon gaining Medicaid coverage, while our reduced form results capture general equilibrium effects of the Medicaid expansion in California.

(non-ER) outpatient care, though we examine trends in potentially avoidable stays and find no change. Third, these results estimate only the short-term effects of the ACA and we acknowledge that the long-term effects, particularly on patient health, may be different.

This paper makes three primary contributions to the existing literature. First, we highlight the locally-funded safety net program in California and use a novel empirical approach to quantify its substitution by Medicaid under the expansion. This aspect has received little attention in previous assessments of insurance coverage changes following the ACA (Sommers et al., 2014; Sommers et al., 2016; Courtemanche et al., 2017*a;* Frean et al., 2017 and many others), perhaps because administrative surveys do not record safety net payers since those benefiting would not typically report being insured. These results also provide empirical evidence to confirm speculation by recent studies (Finkelstein et al., 2015; Finkelstein et al., 2017) that Medicaid beneficiaries value the program substantially below cost since it often replaces other parts of the safety net.

Second, we extend existing work on supply side effects of the ACA (Blavin, 2016; Lindrooth et al., 2018) by linking the Medicaid expansion to changes in hospital finances, particularly government owned hospitals. The Medicaid expansion resulted in a substantial transfer from federal taxpayers, split between hospitals and local taxpayers in California. It remains unclear how this additional revenue was deployed by hospitals other than increasing operating margins. This also relates to recent evidence on hospital sensitivity to insurance coverage changes (Garthwaite et al., 2016).

Third, examining the universe of hospital stays and ER visits allows us to quantify a large increase in hospital use, relative to the increase in insurance coverage. We interpret the large magnitude as being partially driven by supply side responses that encouraged hospital use. Intuitively, our estimates are about half as large as comparable estimates of the long-term effects of Medicare (Finkelstein, 2007). We fail to reject the null of no change in patient mortality, although the point estimates indicate some reduction. A likely mechanism for improved health is reallocation of patients from government to privately-owned – and better-quality – hospitals. This channel has previously received little attention as studies typically valued Medicaid on the basis of improved health or reduced financial risk (Currie and Gruber 1996b; Goodman-Bacon, 2016; Brevoort et al., 2017; Gallagher et al., 2017). Our results also extend previous work that has focused on specific categories of care, such as ER use (Barakat et al., 2017; Garthwaite et al., 2017 and Nikpay et al. 2017), drug prescriptions (Ghosh et. al., 2017), patients with specific diseases (Anderson et al., 2016) or used survey data (Courtemanche et al., 2017b).

Our results take on additional significance when one considers state decision-making regarding the Medicaid expansion, which as a result of a 2012 Supreme Court decision was left up to the states rather than mandated by the federal government. Half the states expanded Medicaid as early as possible in January 2014. But an additional 12 states have since elected to expand Medicaid, with 4 of these decisions occurring

in 2018. As the remaining 14 states consider whether or not to expand their Medicaid programs, evidence regarding the effects of this expansion on insurance coverage, quality of care, and hospital finances along with state and local spending on health care can be helpful in assessing whether to proceed.

The rest of the paper is structured as follows. Section II provides background on insurance coverage in California and the insurance provisions of the ACA. Section III describes the data and presents descriptive statistics. Section IV describes the empirical strategy for the regression discontinuity approach and presents results. Section V presents a companion set of results using geographic variation in poverty across hospital markets. Section VI presents results on changes in hospital finances. Section VII discusses some limitations in interpreting the results and section VIII concludes.

II. BACKGROUND

A. Insurance coverage pre-ACA

The health insurance landscape prior to 2014 was characterized by relatively high uninsurance rates among specific sub-groups. According to data gathered by the American Community Survey (ACS), about 18% of the California population was uninsured in 2012-13. While this indicates a high aggregate level of uninsurance, it masks wide variation in insurance coverage across different age groups. The pre-ACA uninsurance rate among non-elderly adults aged 21-64 was three times that of the remaining population (25% vs. 8%). The elderly benefited from nearly universal coverage provided by Medicare, while children were generously covered by Medicaid (nearly 40%).

Surveys like the ACS may overstate uninsurance rates for two reasons. First, the under-reporting of Medicaid due to its association with welfare is well documented (Klerman et al., 2005; Meyer et al., 2009). Second, surveys typically do not record local safety net programs. These programs fund medical care for a subset of low-income individuals who are not eligible for Medicaid but cannot afford to buy private health insurance. These are not considered traditional insurance since they often pay for care ex-post and hence do not provide risk protection. Hadley et al. (2008) estimates that about 20% of total spending on the uninsured, or about $11 billion dollars, was covered by such local programs in 2008. This is particularly important in our setting since California counties are legally bound to provide such safety net care. In California, safety net programs were funded primarily through a mix of state (sales tax, vehicle license fee, tobacco settlement funds) and county general funds. Federal funding through disproportionate share (DSH) funds played a small role (Taylor, 2013).

Each county designs its indigent services program and thus there is substantial variation in eligibility requirements (e.g. income, assets, residence, age, medical need and immigration status) and services covered (California Health Care Foundation, 2009). Prior to passage of the ACA, California spent approximately 2 billion dollars annually to care for the uninsured through the Medically Indigent Services

Program (MISP), which provided care in 24 mostly urban counties, and the County Medical Services Program (CMSP), which operated in 32 predominantly rural counties (Council of Economic Advisers 2009). With the exception of some MISP counties, these services were available only to non-elderly adults. Hence, a substantial fraction of non-elderly adults counted among the uninsured pre-ACA were at least partially covered by county programs. Note that the provision of informal health care insurance to low income individuals through counties or other state financed mechanisms extended beyond California. Several other states – including those that did not expand Medicaid – offered variants of such programs. Examples include Colorado, Florida, Idaho, Indiana, Massachusetts, Michigan, New Jersey, Texas, New Mexico, Pennsylvania and Louisiana.[5] Across states, these programs vary in financing and service coverage, but share the feature that they reimbursed hospitals for services provided to low-income individuals ineligible for Medicaid.

B. The Affordable Care Act

The ACA was signed into law in March 2010 with several key objectives: increasing access to health care, introducing new consumer protections, and lowering cost and improving quality of health care. There were two primary channels through which the ACA expanded access to health insurance, both of which became effective on January 1, 2014. First, in all states, individuals in families with incomes between 100 and 400 percent of the federal poverty level (FPL) who were not already eligible for affordable health insurance, either from an employer or from Medicaid, were now eligible for premium subsidies provided in the form of advanced tax-credits to purchase private health insurance. Second, the ACA originally intended to expand Medicaid eligibility to all individuals without another source of coverage with family incomes below 133% of the FPL. However, legal challenges and a June 2012 Supreme Court decision allowed states the choice to opt out of expanding Medicaid. California is one of the original twenty-five states (including DC) that chose to expand Medicaid at the beginning of 2014. A dozen additional states have since elected to expand Medicaid. Duggan et al. (2017) provides a more detailed summary of ACA-mandated expansions in health insurance. The Congressional Budget Office estimates that the ACA insurance expansions directly cost the federal government $120 billion in 2017 (CBO, 2017).

Several surveys estimate the number of uninsured in the United States at the quarterly or annual level. Gallup and Sharecare surveys show that the percent of adults without health insurance was trending

[5] Louisiana offered free health care for low income individuals not on Medicaid at state owned safety-net hospitals. See https://www.kff.org/health-reform/fact-sheet/the-louisiana-health-care-landscape/. More information on Pennsylvania: http://www.dhs.pa.gov/cs/groups/webcontent/documents/document/c_259012.pdf. More information on the Colorado state program at https://www.colorado.gov/pacific/hcpf/colorado-indigent-care-program. Some other states have indigent care programs that are mainly funded through disproportionate share payments, e. g. Georgia and New York. See https://www.communitycatalyst.org/initiatives-and-issues/initiatives/hospital-accountability-project/free-care/states for an exhaustive description of indigent coverage for hospital care.

steadily upward prior to 2014, peaked around 18% in late 2013 and then sharply dropped to 11% by the beginning of 2016. The increase in health insurance coverage is largely attributable to both ACA coverage initiatives, with the Medicaid expansion being nearly twice as large as the exchanges.

Even among states that chose to expand Medicaid, there is substantial variation in the impact on Medicaid enrollment. This is driven by variation across states in baseline enrollment, due to states' initial generosity in eligibility criteria, as well as differences in the socio-economic composition of states. Appendix Figure A. 1 shows the percent of the state population enrolled in Medicaid in late 2013 and the net change in enrollment between late 2013 and October 2016. Compare California and New York, where almost one-third of residents in both states were covered through Medicaid in late 2016. However, there was a much greater increase in California, which saw an increase of 10 percentage points compared to an increase of just 4 percentage points in New York. New York eligibility criteria included childless adults prior to 2014 whereas childless adults were generally not covered in California. Consequently, the expansion of Medicaid had a much larger enrollment impact in California. Figure A. 2 displays monthly Medicaid enrollment in California over 2010-16 and highlights the magnitude of Medicaid's expansion and how it dwarfs exchange enrollment. Medicaid enrollment increased from about 8.5 million in mid-2013 to 13.5 million by mid-2016.[6] However, enrollment on the newly established ACA individual insurance exchange plateaued at 1.4 million, or about a quarter of the increase in Medicaid. Figure 1c highlights how the dramatic increase in Medicaid translated into changes in payment for hospital care. The figure plots the share of hospital stays by patients aged 21 to 64 between 2008 and 2016 covered by different insurers. At the beginning of the sample period, Medicaid covered 23% patients, about half as much as private payers. Over the next few years there was a steady upward drift in Medicaid, but even in 2013 it covered only 26% of stays. There was a substantial jump in Medicaid coverage in 2014 due to the expansion, and by the end of the period, Medicaid was the largest payer of hospital care – covering 43% of stays, while private payers covered about 35%.

C. Age based discontinuities in public insurance

Public insurance programs commonly use age-based thresholds to determine eligibility. For example, individuals can enroll in Medicare when they turn 65, but not earlier, unless they are enrolled in the Social Security Disability Insurance program or have end stage renal disease. Similarly, children enjoy relatively generous eligibility rules under Medicaid until age 18 (or 19 under some circumstances) but then often lose coverage because the eligibility criteria become more restrictive. Prior to the ACA, two such

[6] The small jump in enrollment in 2013 is primarily due to the transition of children from the Healthy Families Program to Medicaid. However, California also started to expand coverage slightly even before the primary ACA implementation launched in January 2014 through the low-income health program, which provided coverage to about 500 thousand California residents in 2012-13 (California Budget Project, 2013). This represented only about 10 percent of the eventual increase in Medicaid enrollment.

rules created discontinuities in insurance coverage at 21 and 65 in California. Appendix Figure A. 3 presents an extract of California Medicaid eligibility requirements in the pre-ACA period. Welfare recipients and disabled individuals were relatively generously covered. However, to enroll based on low income status ("medically indigent person or family"), individuals had to be under 21. Adults aged 21 to 64 were generally ineligible except in case of pregnancies, nursing home residence, or enrollment in the federal Supplemental Security Income program.

To examine the magnitude of this discontinuity, we turn to administrative hospital discharge data, acknowledging that this reflects insurance coverage conditional on using hospital care. Figure 1a presents Medicaid's percent of hospital stays for patients aged 10 to 75 discharged from hospitals during 2011-16. In the pre-ACA period (2011-13), Medicaid coverage is high for children aged 10 (45-50%) and gradually declines until age 21 when it falls precipitously by about 15 percentage points. It then varies smoothly again until age 65 when there is another discontinuous drop of about 12 percentage points. Note that in 2013 there was an increase in coverage for children due to the formal transfer of CHIP (Children's health insurance program) beneficiaries to Medicaid. In the post-ACA period (2014-16), the discontinuity at age 21 is eliminated, while at age 65 it is enhanced since more 64-year-olds become eligible for Medicaid.

Figure 1b presents the corresponding plot (note the expanded scale) of the percent of patients that were coded as self-pay, charity care or county indigent. Throughout the paper we collectively refer to these categories as uninsured patients. Pre-ACA, there was a striking increase of 15 pp in uninsurance at age 21, suggesting that the Medicaid eligibility restrictions were important. At age 65 there was an increase in insurance coverage due to the onset of Medicare which more than compensated for the decline in Medicaid. Post-ACA, the discontinuities in uninsurance at 21 and 65 disappear, indicating that the ACA expansions were effective in increasing coverage for the targeted groups. Note that there is no change in Medicaid or uninsurance at age 65 and above through this period, suggesting that this group was insulated from the ACA insurance coverage changes, presumably due to their nearly universal Medicare coverage.

The substantial discontinuities in Medicaid and health insurance coverage at the two age thresholds and their interaction with the ACA motivates our use of a regression discontinuity research design to examine the effects of the ACA on a variety of outcomes.

III. DATA

Our main source of data contains the universe of hospital stays and emergency room (ER) visits at non-federal hospitals in the state of California for the period 2008 through 2016, obtained from California's Office of Statewide Health, Planning, and Development (OSHPD). These confidential data include approximately 3.8 million hospital discharges and 11 million ER visits each year. Each observation pertains to a hospital stay or ER visit and provides information on the hospital, dates of service, patients' primary

insurer type and basic demographics, a vector of up to 25 diagnoses and procedure codes, and patient zip code of residence. As is standard in such files, if an ER visit subsequently leads to hospitalization, then it only appears as a hospital discharge, though the record indicates whether the stay originated as an ER visit. Crucially, we observe both a patient's birth date and admission date and hence we can precisely calculate a patient's age at admission.

We impose three data restrictions for our analysis sample involving the discharge data. First, we focus our attention on short-term general acute care hospitals to decrease the likelihood of small and specific hospitals (for example, rehabilitation or long-term care) driving the results. This restriction decreases the number of hospitals from 450 to 370, but retains 95% of hospital stays and nearly all ER visits. Second, since California Medicaid eligibility rules were already generous regarding pregnancy and delivery cases before the implementation of the ACA, we exclude pregnancy-related hospital stays or pregnancy-related ER visits from the analysis. Third, we exclude patients residing outside of California or with missing zip codes of residence.[7]

We organize recorded insurance coverage into five categories – Medicaid, Private, Miscellaneous, Self-pay, and County. Miscellaneous is primarily composed of Medicare, but also includes workers' compensation and government employee plans. Self-pay includes charity cases and those who pay for their care themselves. County refers to those covered by the county indigent program discussed above.

A. Specific age thresholds

In order to construct the RD-DD sample for our preferred specifications we impose two further sample restrictions. First, we exclude the years 2008-2010 from our main analysis, reserving them for the falsification exercise and to establish baseline statistics. Our main sample therefore spans 2011-16 – three years before and three years after the ACA expansion. Second, we limit the sample to patients admitted within 12 months of their 65th (or 21st) birthday. In order to minimize measurement error we exclude individuals who arrived at the hospital within 15 days of turning 65 (or 21). In robustness checks we explore the sensitivity of our results to using larger age bandwidths. Focusing on specific age groups dramatically curtails the sample size, leaving approximately 560,000 (150,000) hospital stays and 1.3 million (1.9 million) ER arrivals over the period 2011-16 for the elderly and young respectively. ER arrivals include both ER visits and hospital stays that originated in the ER. Throughout the paper we prefer to analyze the sample of ER arrivals since it enables analysis without conditioning on ER admission decisions that could change *in response* to the ACA.

Table 1 Panel A summarizes descriptive statistics on the main RD-DD analysis sample of hospital stays and ER arrivals separately for the young and elderly. The table highlights the sharp increase in

[7] Approximately 1.5% of the discharge records in 2008 were for patients having either an out of state or missing zip code.

Medicaid's share of discharges and the corresponding decrease in uninsurance for patients in these age groups. We compute utilization rates as hospital stays and ER arrivals per 1,000 people per year using California population estimates by single year of age.[8] The cohort that turned 64 in 2014 is coincidentally also one of the earlier baby boomer cohorts and is substantially larger than the cohort one year older in age. Hence normalizing by population helps eliminate a spurious increase in hospital volume for 64-year-olds in the first year of the ACA. We use in-hospital mortality as our metric of patient health. When examining effects on mortality we prefer to restrict the sample to patients discharged with a non-deferrable emergent condition such as heart attack, pneumonia, etc. to circumvent concerns related to selection and shifts in composition.[9] The emergent group intuitively has a greater mortality rate than do other patients.

B. All non-elderly adults

We supplement the RD-DD results using a larger sample of all non-elderly adults (ages 21-64) and exploit baseline variation in poverty across geographic markets. We use Hospital Service Areas (HSAs) as our unit of analysis; this is similar to the approach used in other studies that leverage geographic variation in baseline rates of coverage (Finkelstein, 2007; Courtemanche et al., 2017; Duggan et al., 2017; Frean et al., 2017).[10] HSAs are defined as "collections of contiguous zip codes whose residents receive most of their hospitalizations from hospitals in that area". There are 210 HSAs in California, and on average an HSA is smaller than a county but much larger than a zip code. Table 1 Panel B presents summary statistics on this sample. To be consistent with the RD-DD analysis, we exclude the 2008-2010 period. The resulting analysis sample has 7.5 million and 40.3 million hospital stays and ER arrivals respectively.

C. Hospital finances

OSHPD collects and publishes annual financial data on all hospitals in California. These reports are mandated by California law and provide details on hospital finances, utilization and capital investments. We use files covering 2011-16 in order to examine the effects of the insurance expansions on hospital finances. The financial data is available for a smaller number of hospitals (about 320 instead of 370) since Kaiser Permanente hospitals do not report their finances individually.[11] We make two transformations to

[8] We obtained California population estimates for 2011-16 from National Cancer Institute/NIH. They generated these estimates from population data provided by the National Center for Health Statistics (NCHS). More information available at https://seer.cancer.gov/popdata/singleages.html.

[9] We follow Doyle et al. (2015) to define these conditions and create the sample. They list the 29 conditions used to define this group in their Appendix table A1. We exclude Septicemia since there was a dramatic increase in patient volume under this diagnosis during our sample period, with a near halving of mortality, suggesting that there was a change in how patients were coded under Septicemia over this period.

[10] HSAs were defined by the Dartmouth Atlas Project. There are roughly 210 HSAs in California, of which 79 and 34 are in the LA and San Francisco metropolitan regions respectively. As comparison, there are 58 counties and approximately 1,800 zip codes.

[11] Kaiser Permanente is the largest health maintenance organization (HMO) in the US and owns all its medical care facilities – primary care, hospitals and post-acute care. Kaiser plan members are supposed to receive all medical care within this network. Individual medical centers do not report financial results publicly. More details available at:

the data in preparation for our analysis. First, we convert all nominal values into real 2016 dollar values using the consumer price index for urban (CPI-U) consumers. Second, we normalize revenue, capital spending and discharges by the hospital's average number of licensed beds between 2008 and 2010 to eliminate variation purely due to hospital size.

IV. EFFECTS ON INSURANCE, UTILIZATION AND HEALTH

A. Empirical strategy

Consider a conceptual reduced form model of the effect of health insurance coverage on outcome Y as below:

$$Y_i = \alpha + \beta \cdot Ins_i + \epsilon_i \tag{1}$$

Y_i denotes an outcome of interest (including utilization of care) for individual i and Ins_i is an indicator set to 1 if the individual has health insurance coverage and 0 otherwise. ϵ_i represents all unobserved factors that affect outcome Y. The key challenge in obtaining an unbiased estimate of the causal effect β is that individuals choose to purchase or enroll in health insurance coverage based at least partly on private information about their health risk as well as their appetite for risk.[12] Appendix Table A. 1 illustrates this self-selection problem by presenting key attributes for insured and uninsured individuals at age 21 (Panel A) and 65 (Panel B) using 2004-09 data from the National Health Interview Survey (NHIS). For example, insured young adults are much more likely to be in school and less likely to be married, employed or smokers. Insured elderly are more likely to be married or employed, but less likely to be smokers. The differences (Column 3) are both statistically significant and economically meaningful. These individuals are likely to differ on important unobservable characteristics as well, implying that the required condition $\mathbb{E}(\epsilon_i \mid Ins_i) = 0$ will not be not satisfied.

Recent studies (Card et al., 2008; 2009; Anderson et al., 2012; 2014) have overcome this endogeneity concern by exploiting the presence of age-based insurance eligibility restrictions and discontinuities in coverage by using a fuzzy regression discontinuity framework. For example, in our setting we can exploit the discontinuous change in insurance coverage that existed pre-ACA at age 65 to determine the causal effect of insurance coverage using equations of the type shown below.

$$\mathrm{Ins_i} = \alpha_{10} + \theta_1 d_i + \lambda_{11}(a_i - 65) + \lambda_{12} d_i (a_i - 65) + [\boldsymbol{X_i'}\psi_1 +]\, \epsilon_{1i} \tag{2a}$$

$$\mathrm{Y_i} = \alpha_{20} + \theta_2 d_i + \lambda_{12}(a_i - 65) + \lambda_{22} d_i (a_i - 65) + [\boldsymbol{X_i'}\psi_2 +]\, \epsilon_{2i} \tag{2b}$$

https://share.kaiserpermanente.org/article/fast-facts-about-kaiser-permanente/.

[12] Other factors would surely influence this as well, including the price and quality of health insurance.

Equation 2a models insurance status for patient i as a function of her age at arrival, a_i and whether she is younger than 65 ($d_i = 1$). Insurance status is assumed to vary linearly with age (through λ_{11}), allowing for a different slope for individuals under the threshold (through λ_{12}). Equation 3b presents the corresponding reduced form relationship between outcomes of interest (Y_i) such as utilization and age status d_i. In both cases we may include additional patient controls X_i as needed. These equations would be estimated using data from the pre-ACA period on patients aged close to 65. The fuzzy regression discontinuity estimator of the causal effect of insurance coverage on outcome Y is then given by $\gamma_{RD} = \theta_2/\theta_1$, and is equivalent to a local average treatment effect (LATE) estimator (Hahn et al., 2001).

However, the primary goal of this paper is to quantify insurance coverage changes *caused by the ACA* as well as resulting effects on utilization of care and patient health. To do so, we build on the above framework by exploiting the fact that the Medicaid expansion and introduction of the insurance exchange led to dramatic changes in discontinuities in insurance coverage at ages 21 and 65. This setting therefore lends itself to an RD differences-in-differences research design. Accordingly, we adapt the above estimating equation as below:

$$\mathrm{Ins_{it}} = \alpha_{10} + \delta_{1t} + \theta_{11} d_i + \theta_{12} d_i \cdot T_t + \mathrm{D_i^{'}} \Lambda_1 \mathrm{G}(a_i) + [\boldsymbol{X_i^{'}} \psi_1 +] \epsilon_{1\mathrm{it}} \qquad (3a')$$

Equation 3a' represents the modified first stage equation. We now define d_i more generally in order to accommodate both age thresholds of interest. In the case of the young it denotes those aged 21 or older, while in the case of the elderly it denotes those aged 64 or younger.

$$d_i = \begin{cases} 1(a_i \geq 21) & \text{if young} \\ 1(a_i < 65) & \text{if elderly} \end{cases}$$

The indicator $T_t = 1(t \geq 2014)$ denotes whether the ACA has been implemented. The equation allows insurance coverage to be modeled as a flexible function of age, using D_i and Λ_1. $D_i^{'} = [1\ d_i\ ]$ is a 1x2 vector indicating patient-specific treatment status. Λ_1 is a corresponding 2xk matrix of age coefficients to be estimated, where k is the order of the age polynomial, G. In our main results we use a linear polynomial in age, i.e. $k = 1$ so that the first stage and reduced form equations reduce to the following simple form.

$$\mathrm{Ins_{it}} = \alpha_{10} + \delta_{1t} + \theta_{11} d_i + \theta_{12} d_i \cdot T_t + \lambda_{11} \bar{a}_{\boldsymbol{i}} + \lambda_{12} \bar{a}_{\boldsymbol{i}} \cdot d_i + [\boldsymbol{X_i^{'}} \psi_1 +] \epsilon_{1\mathrm{it}} \qquad (3a)$$

$$\mathrm{Y_{it}} = \alpha_{20} + \delta_{2t} + \theta_{21} d_i + \theta_{22} d_i \cdot T_t + \lambda_{21} \bar{a}_{\boldsymbol{i}} + \lambda_{22} \bar{a}_{\boldsymbol{i}} \cdot d_i + [\boldsymbol{X_i^{'}} \psi_2 +] \epsilon_{2\mathrm{it}} \qquad (3b)$$

We de-mean patient age relative to the benchmark (aged 21 or 65), which we denote $\bar{a}_i$, and include a full set of year fixed effects δ_t. For some outcomes we also include a vector of patient controls X_i to account for observable differences in patient sickness, such as arrival diagnosis category and gender. We cluster standard errors by day-of-age cells (e.g. 65 and 2 days, 65 and 3 days and so on) to account for possible correlated error terms among patients of the same day-of-age.

The coefficients of interest in this model are θ_{12} and θ_{22} and they estimate the average change in the discontinuity at the threshold due to the ACA (i.e. post vs. pre). The causal effect of insurance on Y_i i.e. the RD-DD estimator, is given by $\gamma_{RD,DD} = \theta_{22}/\theta_{12}$ (Persson, 2017) and its identification relies on stronger assumptions.

This strategy can be used to recover two types of estimators. The first estimator is the reduced form change in insurance coverage, utilization or health caused by the ACA – quantified by θ_{12} and θ_{22} above. Since these are similar to differences-in-differences estimators, the identification assumption is that in absence of the ACA insurance expansions there would be no change to the discontinuity that existed pre-ACA, i.e. $\theta_{12} = 0$ and $\theta_{22} = 0$. We present supporting evidence through a falsification exercise assuming a placebo insurance expansion in 2010. We find little or no change on any outcome of interest between 2008-09 and 2010-11, providing reassuring evidence in support of this assumption.

To the extent that insurance coverage also changes for the control groups (ages 20 and 65) as a result of the ACA, it is differenced out as a secular trend. Hence this approach will underestimate the aggregate effects of the ACA. This is a pertinent concern in the case of young adults since Medicaid coverage also increased substantially for 20-year-olds (see Figure 1a). For this reason, we focus our discussion of results on the elderly group of patients.[13]

The second estimator, $\gamma_{RD,DD}$ is a derivative of the RD estimator, γ_{RD}. As discussed in Lee and Lemieux (2010), three assumptions enable a causal interpretation. First, relevant observable and unobservable factors that could affect the outcomes of interest should vary smoothly at the age threshold. For example, if individuals are disproportionately likely to graduate from college or enter employment exactly at age 21 or exit the labor force exactly at age 65, this would violate the above assumption. Table A. 1 column 5 presents population weighted estimates from the NHIS on discontinuities in school enrollment, marital status, employment and a number of other factors at ages 21 (Panel A) and 65 (Panel B). Column 4 presents mean values at the thresholds to serve as comparison. The evidence reassuringly indicates there is no statistically significant jump in these factors – with the exception of alcohol

[13] The ACA also implemented minor cuts to growth in Medicare payment rates and introduced performance pay incentives for hospitals; hence, 65-year-old patients are not perfect 'controls'. But these changes are minor relative to the Medicaid expansion in California.

consumption which jumps at age 21. This may bias the RD estimator for young patients, a second reason to focus on the elderly patient group.

The other two assumptions are common to all LATE estimators – exclusion of the instrument from the outcome equation, and monotonicity (Angrist and Imbens, 1994). Together, they imply that the estimated changes in utilization and health are only due to change in behavior by 'compliers', i.e. those gaining insurance due to the ACA. Given the large-scale nature of changes wrought by the ACA, supply side factors (i.e. changes in treatment or outreach by hospitals and physicians) or spillover effects on infra-marginal individuals (e. g. individuals already eligible for Medicaid) may contribute substantially to the observed changes in outcomes. Exclusion restrictions are generally strong, and in this setting they may be untenable given the substantial changes in the health insurance landscape. Hence we focus our presentation of results to the reduced form estimates.

B. Insurance coverage

We begin by analyzing changes in insurance coverage for patients discharged from hospitals in California's hospitals using data from 2011 through 2016, acknowledging that changes in insurance may have caused a change in utilization of care and who gets hospitalized. We explore that possibility in section IV.C.

i. Changes in insurance post-ACA

Figure 2 plots observed and predicted changes in insurance coverage in 2014-16 relative to 2011-13 (circles, solid lines) for the elderly (Panel A) and young (Panel B) respectively. The predicted values were obtained by estimating equation 3a on case level data, although for presentation clarity we collapse the data to month-of-age.[14] In both patient groups, insurance coverage increases differentially for the treated patient sample (i.e. 64- and 21-year-olds) post-ACA. The differential increase is much larger among the young (~14 percentage points) as compared to the elderly (6 pp). One approach to interpret the magnitude of this change in coverage is to compare it in magnitude to the pre-ACA gap in coverage between the treated and 'control' patient groups, since 21- and 64-year-olds have historically been at an insurance disadvantage relative to their counterparts aged 20 and 65, respectively. The pre-ACA gap was 15 pp and 7 pp respectively for the young and elderly (not presented in the figure). Hence the ACA nearly eliminated the disparity in health insurance coverage at these two age thresholds (also suggested by the patterns in Figure 1b).

[14] We use regression coefficients from equation 3a to predict the probability of insurance coverage for each patient. We then collapse these predicted probabilities by taking the mean across all patients admitted with the same month-of-age. For both predicted and observed values, we calculate differences between the pre-ACA and post-ACA period in each month-of-age cell. The figures plot these aggregated predicted – and corresponding observed – values.

Figure 2 also presents – as a falsification exercise – the corresponding observed and predicted changes in insurance coverage over 2010-11 relative to 2008-09 (squares, dashed lines). The estimated magnitude is an order of magnitude smaller, and of the opposite sign: -0.6 pp. In addition to being minor, this estimate implies a differential pre-trend of *decreasing* insurance coverage among those aged 64, which would work against our finding an increase in insurance coverage post-ACA. There is a similar pattern in the case of the younger patients.

Since 20-year-olds experienced a substantial increase in coverage of about 6 pp, they are not an ideal control group. Our research design recovers the incremental effects of the ACA for 21-year-olds and will understate the aggregate effect. In contrast, there was no change in insurance coverage for 65-year-olds. Hence, for the remainder of the RD analysis we will focus on results for our sample of elderly (i.e. aged 64-65) patients, while results on the younger patients (aged 20-21) are mostly relegated to the appendix.

Appendix Figure A. 4 presents a disaggregated version of Figure 2 by plotting corresponding changes for different insurer types – Medicaid, Private, Self-pay and County indigent care. We do not present the change in Medicare and miscellaneous coverage types since there is essentially none. The appendix figure indicates that Medicaid expansion drove the increase in insurance since Medicaid is the *only* source of increase in coverage for elderly patients. This figure also suggests that the increase in Medicaid may be at least partially offset by a decrease in other existing types of health insurance coverage. We discuss these changes and implications for crowd-out next.

ii. Crowd-out

An important policy concern associated with the expansion of publicly funded insurance is the potential crowd-out of existing payers. Our research design allows us to identify crowd-out of existing insurers among hospitalized individuals in California. Table 2 presents formal estimates of changes in insurance coverage at the two age thresholds for patients discharged from hospital stays, obtained by estimating equation 3a on case level data. Panels A and B present results for the elderly and young respectively. Within each panel, the top row presents the average change in coverage post-ACA for 64-year-olds relative to 65-year-olds (θ_{12}), while the remaining rows present flexibly estimated effects for each post-ACA year. Columns 1-3 present results on Medicaid, Private and Miscellaneous insurance types. Column 4 presents results on aggregate coverage, while columns 5 and 6 present results on self-pay and the county indigent program.

Table 2 Panel A has two key implications. First, overall coverage for the elderly increased less than the increase in Medicaid (5.9 pp vs. 8.7 pp). This is mainly due to a 2.6 pp decrease in private coverage. Second, the decline in self-pay is about 30 percent the size of the increase in Medicaid (2.6 pp vs. 8.7 pp). In fact, there is a larger decline in the county indigent program (3.3 pp or 40% of the Medicaid expansion)

than in self-pay. Post-ACA, the county indigent program shrinks to nearly zero. The remaining 30% of the Medicaid expansion is offset by the decline in private insurance. The dynamic results indicate that insurance coverage increased gradually between 2014 and 2016, with about 85% of the average gain (7.4 vs. 8.7) obtained in the first year. Hence these results may understate the long-term effects of the expansion.

The results above permit two observations. First, the Medicaid expansion drove the increase in health insurance coverage. The ACA exchange enrollments apparently did not lead to a net increase of private coverage among elderly hospitalized patients.[15] When we discuss the effects on utilization and health, we will interpret them as primarily occurring due to the Medicaid expansion.

Second, the near demise of local safety net programs implies that a substantial share of the Medicaid expansion replaced existing state and county spending on health care. Extrapolating directly from our estimate above (40% of increase in Medicaid replaced county coverage) implies that for every $100 increase in Medicaid hospital spending, about $40 replaced safety net spending. This naïve interpretation ignores differences in patient severity and reimbursement rates between Medicaid and the safety net program. However, the reimbursement rates were in fact quite different. Financial data reported by hospitals to California indicates that in 2011-13 hospitals were reimbursed at half the rate for county indigent patients as for Medicaid patients ($1,240 vs. $2,400 per day).[16] Hence the $40 transfer from federal tax payers that fully funded the Medicaid expansion is about equally split between hospitals that now receive greater reimbursement rates, and California and county governments that largely funded the local safety net. There are distributional implications as well – if we ignore differences in the costs of raising taxes at different levels of government, this transfer was borne by federal taxpayers outside California, including those residing in states that chose to not expand Medicaid. We return to implications for hospitals in section VI when we examine effects on hospital finances.

C. Utilization of care

i. Volume

Since our data is conditional on discharge from a hospital, we cannot study the rate of hospital use at the individual level (since for example many individuals are not hospitalized during our study period). We use hospital stays or ER arrivals per 1,000 people per year (i.e. the utilization rate) as our preferred measure. We collapse the data to day-of-age at admission (denoted by s) - year cells and estimate the following model.

[15] The data does not allow us to differentiate between exchange and non-exchange plans. It is possible that exchange plans did cause an increase in private insurance coverage. If true, this was apparently more than offset by a crowd-out of other type of private coverage.

[16] In 2016 dollars. A caveat is that these numbers are for patients of all ages and include maternity stays. Both Medicaid and the county indigent programs require small or no co-payment so the effective price on the demand side is not different for the two programs.

$$y_{st} \quad = \ \gamma_{3t} + \theta_{31} d_s + \ \theta_{32} d_s \cdot T_t + \lambda_{31} \bar{a}_{st} + \lambda_{32} \bar{a}_{st} \cdot d_s + \ \epsilon_{st} \tag{4}$$

This is an exact analog of equation 3b, which was estimated on case level data. y_{st} and $\bar{a}_{st}$ denote the mean utilization rate and de-meaned age of patients in the day-of-age - year cell s, t. d_s is the corresponding indicator obtained by collapsing d_i within each day-of-age cell. The coefficient of interest is θ_{32} – the estimated change in the discontinuity in the rate of utilizing hospital care post-ACA for the treated group relative to the control.

Figure 3 presents the observed change in the rate of utilization post-ACA of hospital stays (Panel A) and ER arrivals (Panel B) for elderly patients, by month of age. In addition, we plot fitted values obtained by estimating equation 4. Panel A shows that there has been a decline in the rate of hospitalization for both 64- and 65-year-old patients, with a smaller decline for the treated group, and a noticeable drop exactly at age 65. Panel B shows on the other hand that there has been an increase in the rate of ER use for both groups, with a greater increase for 64-year-olds.

Table 3 presents estimated effects on utilization of care for elderly patients, obtained using equation 4. Table 3 column 1 presents results for all hospital stays. Columns 2 and 3 examine effects separately for hospital stays that originated through the ER and those that did not since they may respond differently to changes in insurance coverage. Similarly, columns 4 and 5 present results separately for deferrable and non-deferrable hospital stays. The table presents both average post-ACA effects (top row) and dynamic effects for each year 2014-16. We find a differential increase among 64-year-olds of 6% of the mean (8 stays per 1,000 people per year), which eliminates 40% of the pre-ACA gap in hospital stays between 64- and 65-year-olds. The estimates indicate that much of the increase is driven by stays for elective or non-emergent reasons. For example, 85% of the increase is driven by more stays for deferrable conditions, and 60% by stays that did not originate in the ER. Table 3 columns 6 and 7 present corresponding results on ER use. We present results on all patients arriving at the ER (column 6), as well as those that were discharged from the ER (column 7). The pattern of increase in ER use is similar to that of hospital stays, whether benchmarking it as a percentage of the mean level or against the pre-ACA gap between 64- and 65-year-olds. Across hospital stays and ER arrivals, the ACA resulted in an increase in utilization rate that bridged about 35-40% of the pre-ACA gap in volume between 64- and 65-year-olds.[17]

[17] Our reduced form estimates are similar in magnitude to those reported by Card et al. (2008). They examined the effects of the onset of Medicare coverage at age 65 on utilization of care and insurance coverage, using data from California, Florida and New York. They find an 8 percent increase in the rate of hospitalization at age 65, while we find a 6% increase post-ACA. They estimated an increase of 5% and 14% in stays originating in ER vs. not, while our corresponding estimates are 3% and 10% respectively. We also estimated alternative specifications 1) using log of utilization rate as outcome, and 2) in the spirit of a regression kink i.e. allowing the effect to increase with exposure to the ACA (based on age and time since 2014). These results are qualitatively similar and are available on request.

The hospitalization rate for 64-year-olds pre-ACA was about 0.13 stays per individual per year. Our estimate implies this rate increased by 6% (~0.008) post-ACA. If it is driven entirely by the 6 percent who acquired coverage due to the ACA then it implies an increase of 0.13 (0.008/0.06) stays i.e. a doubling of utilization for marginal individuals. This effect is three times the comparable estimate from the Oregon experiment (Finkelstein et al., 2012). They report a LATE estimate of a 30% increase (Table A.26) for near-elderly individuals (aged 50-63) due to Medicaid coverage. It is possible that the newly insured individuals are sicker than existing Medicaid patients and hence need to consume more hospital care. Perhaps more importantly, our estimated increase may be driven by general equilibrium effects. For example, hospitals and physicians may have responded to the much publicized Medicaid expansion and increased reimbursement rate by expanding access to and increasing treatment intensity for low-income non-elderly patients.

ii. Choice of hospital

In addition to increasing hospital care, patients may also be receiving care at different types of hospitals after the Medicaid expansion. We explore hospital choice on two dimensions – ownership type (e.g. public, private non-profit, and private for-profit) and quality (as measured by risk adjusted mortality and readmission scores). A key benefit of expanding insurance could be enabling patients to choose higher quality care providers or providers that patients prefer for other reasons (e.g. proximity).

a. Hospital owner type

Figure 4a presents the change in the observed share of stays at government hospitals for elderly patients post ACA. It also presents the corresponding fitted values obtained by estimating equation 3b on case level data. Figure 4a indicates that patient volume shifted away marginally from government owned hospitals (~1.1 pp) post-ACA. The discontinuity in the share of government owned hospitals is more diffuse than those in insurance coverage and volume, but the patterns for 64- and 65-year-olds are clearly different, with a larger reduction in government share among 64-year-olds, whose coverage differentially increased.

Table 4 columns 1-3 present estimated effects on hospital share by owner type for elderly patients. Panel A presents results for hospital stays, while Panel B presents results on ER arrivals. The table confirms the trends shown by the plot, and suggests that for-profit hospitals gained about 70% of this shift in volume, although by 2016 both non-profits and for-profits benefit about equally. Note that 64-year-olds were more likely to receive care at government owned hospitals in the pre-ACA period. This shift from public to private hospitals among 64-year-olds after the ACA narrows the pre-ACA gap between 64- and 65-year-olds by 60%, but does not eliminate it.

Our research design cannot help us disentangle the mechanisms – specifically supply vs. demand side channels – behind this shift in hospital care toward private hospitals. Assuming Medicare patients are unconstrained in their hospital choices, the lower share of government hospitals among 65-year-olds

indicates patient preference for private hospitals. Hence, the most intuitive explanation for narrowing this gap post-ACA is that it is demand driven. However, we cannot rule out the possibility that private hospitals proactively courted ACA beneficiaries (such as exchange enrollees and Medicaid beneficiaries). To inform our interpretation, we replicate the analysis on the sample of ER arrivals (Table 4b). ER arrival patterns are more likely to reflect patient preferences since they are presumably for emergencies and hence there is less scope for physician influence.[18] We find a similar pattern of movement away from government owned hospitals among ER arrivals. In fact, the shift is greater in percentage terms (11% vs. 7% for hospital stays) among ER users. Taken together, these results suggest that the differential drop in the utilization of care in public hospitals among 64-year-olds reflects the greater choice afforded by formal health insurance coverage.

b. Hospital quality

Hospital ownership is correlated with quality or with perceived quality of care (for example, academic medical centers are generally high quality and non-profit), but not perfectly so. To examine if the above sorting across hospitals is motivated by quality, we use two commonly accepted quality measures – risk-adjusted 30-day mortality and readmission rates – as indicators of hospital quality. We test if patient volume has shifted toward hospitals that were publicly certified by CMS in 2009 as having better quality outcomes.

CMS calculates these measures for Medicare patients discharged from hospitals for a number of serious conditions. The raw mortality and readmission rates are adjusted for patient risk history and observed sickness at the time of admission.[19] We start with the risk-adjusted rates for hospitals, as reported by CMS in 2009, on three conditions: heart attack, heart failure and pneumonia. We then compute the mean rate for each hospital and normalize it such that the distribution across hospitals is standard normal with a mean of 0 and standard deviation of 100.

Figure 4b presents the observed mean normalized mortality scores and corresponding fitted values obtained by estimating equation 3b on the Y-axis, against patient month-of-age on the X-axis. The plot is admittedly diffuse, without a clear discontinuity at age 65. The fitted values indicate that mean hospital mortality score increased for 65-year-old patients, while it held relatively constant for 64-year-olds, resulting in a relative improvement of about 2 pp. We do not present the corresponding plot for mean readmission scores since the estimated change is not statistically significant – although the point estimate is negative – and the plot is even more diffuse.

[18] We also directly examined if 64-year-old patients are receiving care at hospitals located closer to them, however we did not find any consistent patterns. We used distance between the patient's and hospital's zip codes, provided by NBER. These results are available on request.

[19] More details on the methodology are available at https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/OutcomeMeasures.html. The mortality measures are available at https://data.medicare.gov/data/hospital-compare.

Table 4 columns 4 and 5 present the formal estimated effects on mean mortality and readmission scores respectively. Panels A and B present the results for hospital stays and ER arrivals respectively. The results are similar across both panels and indicate that patient volume among 64-year-olds has shifted toward marginally better-quality hospitals. In the pre-ACA period, 64-year-olds received care at lower quality hospitals (0.04 s. d. higher mortality rate) relative to 65-year-olds. The estimated effects for hospital stays indicate that the pre-ACA disparity between 64- and 65-year-olds decreased by about half. As an additional test, we also obtained alternative estimates where the specification controls for hospital owner type. The coefficients drop in magnitude by about half but remain statistically significant in the case of mortality. We interpret this to mean patients are sorting toward better-quality hospitals even *within* the same hospital owner type, and this contributes 50% of the observed improvement in hospital quality.

To interpret the magnitude of this change we use revealed preference estimates of the additional distance patients are willing to travel to receive care at better hospitals. There is a large literature on hospital choice which has developed approaches to estimate these parameters and a full review is outside of the scope of this paper, but the most relevant reference is Tay (2003) who examines Medicare data from California, Oregon and Washington. She finds that younger, white, male heart attack patients are willing to travel up to 8 miles further to receive care at a hospital with a 3% lower mortality rate. Our results imply that 64-year-olds are now receiving care at hospitals with a 0.03 pp (0.02 s. d. i.e. 2% of 1.6 pp, not reported here) lower mortality rate, or approximately 0.3% of the mean 30-day mortality rate for heart attack patients (~10 pp). Crudely applying the 8-mile benchmark suggests that the average 64-year-old hospital patient is benefitting by the equivalent of a ~1 mile (0.3/3*8) reduction in travel distance.

D. Health Outcomes

Well-designed field experiments have indicated no tangible benefits of insurance coverage on patient health (Manning et al., 1987; Finkelstein et al., 2012). However, some studies on the effects of Medicaid have found mortality benefits, albeit among children (Currie & Gruber, 1996a; Bailey & Goodman-Bacon, 2015; Goodman-Bacon, 2018). Similarly, evidence from the recent Massachusetts insurance reform indicates substantial mortality benefits of expanding coverage for low income individuals (Sommers, Long and Baicker, 2014). The ACA was designed to explicitly extend insurance coverage for non-elderly adults – a group that has historically received less attention. In this section we test the effects of the ACA on patient mortality, specifically in-hospital mortality – the largest component of 30-day mortality.[20]

[20] Due to data limitations, we do not observe 30-day mortality post ACA. We obtained death-linked hospital discharge files over 2008-11 from California OSHPD to examine the link between in-hospital mortality standard metrics of mortality. OSHPD creates these files by linking hospital discharge records with the state death register. Hence, we can observe standard short-term mortality outcomes like 7-day and 30-day mortality through November 2011. We find that in-hospital deaths accounted for 79% and 64% of

Appendix Table A. 2 columns 1 and 2 present regression estimates on in-hospital mortality for elderly patients obtained by estimating equation 3b. Panels A and B present results for hospital stays and ER arrivals respectively. Due to the increase in hospital use, there is a concern that unobserved decrease in patient severity may lead to spuriously estimating a decrease in mortality. Prior studies (Card et al., 2009; Doyle et al., 2015) have circumvented this concern by focusing on the subset of patients discharged with emergent non-deferrable conditions such as Heart Attack and Pneumonia, where outpatient treatment is not possible. We follow the same approach and these results are presented in column 2. The point estimate of the effect on in-hospital mortality is a statistically insignificant -0.29 pp, about 7% of the mean mortality rate in the sample. Prior to the ACA, 64-year-old patients had a higher in-hospital mortality rate (a statistically insignificant 0.35 pp difference), and this result suggests that this gap has been almost entirely eliminated. Though the estimate is noisy, we can rule out an effect greater than 10% of the pre-ACA mean mortality rate. We therefore interpret the suggestive evidence on mortality with caution and refrain from a formal cost-benefit computation.

A key argument used in favor of expanding insurance coverage was that greater immediate access to preventative care would circumvent later wasteful use of expensive ER/hospital care. Hence, a natural second outcome of interest to measure patient health is whether the ACA led to a decrease in the wasteful use of hospital care. Potentially avoidable episodes are identified for a subset of visits based on ICD-9 diagnosis codes recorded in a patient's discharge data and have previously been used for this purpose (Kolstad and Kowalski, 2012).[21] Table A. 2 column 4 presents corresponding estimated effects on the share of stays that were potentially avoidable. The coefficients are very small and statistically insignificant, suggesting there is no change. This is consistent with prior evidence from Tennessee showing that a contraction of Medicaid did not increase the share of uninsured stays for avoidable reasons (Ghosh and Simon, 2015).

E. Robustness and falsification checks

i. Alternate specification

Our preferred specification allows the slope with respect to age to differ for treatment and control groups but constrains the slopes to remain unchanged in the post-period. In this sub-section we test robustness to relaxing this constraint. Appendix Table A. 3 presents corresponding results on all key outcomes – changes in insurance coverage (columns 1-5), utilization (cols. 6-7), hospital choice (cols. 8-9)

7-day and 30-day mortality respectively for patients in these age groups. In-hospital death is also highly predictive of 30-day mortality across hospitals, with an R-squared of over 0.9.

[21] Potentially avoidable care hospitalization is defined only for hospital care where the primary diagnosis code pertains to a condition of the endocrine, nervous, circulatory, respiratory, digestive or ill-defined systems. These categories account for about 55% of the total sample of elderly patients in 2011-16 respectively.

and patient health (cols. 10-11). To facilitate comparison, Panel A repeats our main results. Panel B presents results using a fully flexible specification that also allows the slopes with respect to age to change in the post period, holding the bandwidth at 1-year around the benchmark age of 65. We present coefficients on the relative change in the pre-ACA gap between 64- and 65-year-olds post-ACA, as in our main results.

The results exhibit qualitatively similar patterns and most have only minor differences in point estimates. The exceptions are a substantially larger estimated increase in ER arrivals in column (7) and smaller magnitude estimates on hospital choice in columns (8) and (9). Additionally, we performed another specification check modeling outcomes as quadratic functions of age and found similar point estimates.

ii. Alternate bandwidth

We prefer one year as the narrowest feasible bandwidth to implement the RD-DD design. However, we test robustness to other choices by replicating results using a larger bandwidth of two years instead. Appendix Table A. 3 presents corresponding results of this robustness check for all key outcomes. In Panel C, we continue to use our main specification, but with a 2-year bandwidth. Panel D presents results in which we use both the flexible specification and a 2-year bandwidth.[22] The results indicate minor differences in point estimates, but qualitatively similar patterns. Taken together, the results are reassuringly robust regardless of specification or bandwidth.

iii. Falsification

A valid identification concern is that the results may be partially or fully driven by pre-existing economic trends that may differentially affect 64-year-old patients. This is particularly relevant in the case of the estimated decrease in private coverage, which is a larger trend observed in health care data since the Great recession. To investigate this possibility, we replicated our regression discontinuity analysis over the period 2008-11 i.e. before the ACA insurance expansions were implemented. Ideally, if our pre-ACA coefficient (2011-13) estimates a stable discontinuity in coverage, then we should find similar estimates in the 2008-09 period as well, i.e. $\theta_{11}^{08-11} = \theta_{11}^{11-16}$. If the post-ACA coefficient captures changes only due to the ACA, then we would find a zero (or very small) effect in the placebo analysis, i.e. $\theta_{12}^{08-11} \approx 0$.

Table 5 presents results from the placebo analysis on insurance coverage, utilization, hospital choice and patient health for hospital stays. It summarizes effects on key outcomes from Table 2, Table 3, and Table 4. The top row presents the estimated difference between 64- and 65-year-olds over 2008-09 i.e. θ_{11}^{08-11} from equation 3a/3b while the second row presents the change in this gap post 2010, i.e. θ_{12}^{08-11}. The placebo coefficients for post 2010 change are not significantly different from zero or are very small in magnitude. Overall, the pattern of results does not mimic the post-ACA results. For example, we find an increase in self-pay, no change in the rate of hospitalizations or the share of government hospitals. There is

[22] Again, the use of a quadratic specification does not affect coefficients with a 2-year bandwidth and these results are virtually identical to those in Panel C. Results using quadratic specification are available upon request.

a small increase in Medicaid of 0.75 pp, and a decrease in private coverage of similar magnitude, which may be due to the 'early' Medicaid expansion implemented in California in 2011 (Golberstein et al., 2015; Sommers et al., 2015; Wherry and Miller, 2016). Nevertheless, these coefficients are very small relative to the effects obtained after the full expansion took effect in January 2014.

V. ALL NON-ELDERLY ADULTS

A. Empirical strategy

We consider the RD-DD design our preferred approach, but its external validity is limited. The RD-DD estimates are mainly representative of effects for individuals just below age 65 relative to those at age 65. Additionally, patients aged 64-65 are less than 10% of the size of the non-elderly patient sample. We therefore supplement the RD-DD analysis above using an alternative approach that takes advantage of the entire non-elderly (21-64) sample and relies on variation across hospital service areas (HSAs), a commonly used hospital market definition discussed in section III.B.

The ACA was *designed* to increase insurance coverage among lower income families and individuals. In 2012, the uninsurance rate among California adults aged 19-64 with income below the 138% of the federal poverty level was 36%, in contrast to 15% for those above (Charles et al., 2017). Markets with lower average income levels therefore had higher rates of uninsurance prior to the ACA and would experience greater decrease in uninsurance due to the ACA. Our thought experiment predicts that such HSAs would experience a greater "insurance expansion shock" than markets with lower poverty.

We deploy a differences-in-differences research design exploiting cross-sectional variation in poverty rates (the share of the population below 125% of the federal poverty level) across HSAs in 2007-11. We use data from the ACS 2007-11 5-year estimates to calculate the poverty variation just prior to the ACA. Figure 5 presents a histogram of the estimated poverty rates among non-elderly adults across HSAs. There is substantial variation in poverty – the difference in poverty between the top and bottom quintile markets was 18%, coincidentally similar to the mean poverty level. In addition, we leverage within-HSA time-series variation created due to the implementation of the ACA in 2014. We estimate econometric models at the HSA-year level, presented in equation 5a.

$$Y_{jt} = \alpha_j + \gamma_t + \xi \cdot Poverty\ rate_j \cdot T_t + [\boldsymbol{X}_{\boldsymbol{jt}}^{'}\psi +]\ \epsilon_{ijt} \qquad (5a)$$

Y_{jt} is the mean outcome value for HSA j in year t. T_t is an indicator for years 2014 and later. The coefficient of interest is ξ which estimates the change in outcome Y post-ACA (2014-16) versus pre-ACA (2011-13) for a market with baseline poverty rate of one compared to a market with no poverty. We

maintain the sample period 2011-16 in order to be consistent with the RD-DD analysis. We include a full set of HSA and year fixed effects, α_j and γ_t, respectively. Some specifications account for observable differences in patient characteristics (age group, gender, and category of principal diagnosis) by including vector $\boldsymbol{X_{jt}}$. To mitigate the influence of small outlier units, we weight each HSA by pre-ACA non-elderly population estimates obtained from the same source as the poverty shares.

Identification of the causal effect of the ACA relies on the standard parallel trends assumption, i.e. outcomes for HSA markets at different poverty levels would evolve along similar paths in absence of the ACA. To test the presence of possible differential pre-trends across markets, we estimate and present results from models allowing effects ξ_s to vary flexibly by year from 2011 through 2016, omitting 2013 as the reference year, as depicted in equation 5b.

$$\mathrm{Y}_{jt} = \alpha_{\mathrm{j}} + \gamma_{\mathrm{t}} + \sum_{\substack{s=2011,\\ \neq 2013}}^{s=2016} \xi_s \cdot \text{Poverty rate}_{\mathrm{j}} \cdot \mathrm{I}(\mathrm{t} = \mathrm{s}) + \epsilon_{jt} \qquad (5b)$$

Note that this approach uses a different source of identifying variation relative to the regression discontinuity analysis. Estimates from the geographic analysis inform us about changes for patients residing in high poverty areas *relative* to changes for patients in affluent markets. To the extent that affluent markets also experienced changes, these will be differenced out. For example, Medicaid coverage for patients in the most affluent quintile of HSAs nearly doubled from 13% to 25% (a 12 pp increase) post-ACA. However, Medicaid coverage for the least affluent quintile increased by an even larger margin – 18 pp. This research design is designed to model only the net widening of the gap (by 6 pp) between the two groups of markets. As with the RD-DD analysis, this approach may therefore understate the aggregate effects of the ACA.

In the interest of brevity, we summarize regression results obtained using this approach into two tables. Table 6 presents the results on insurance coverage and volume of care, while Table 7 presents corresponding results on hospital choice and patient health. In both tables panel A presents the average post-ACA effect, while Panel B presents flexibly estimated effects for each year from 2011 through 2016 relative to 2013.

B. Insurance coverage

Table 6 columns 1-6 present results on changes in insurance coverage. These results lead to similar conclusions as in the RD-DD approach. First, there was a large increase in insurance coverage, driven primarily by Medicaid. The mean poverty rate in the pre-ACA period was 18%, hence the coefficient of 29 implies an average increase in Medicaid coverage of 5.2 percentage points (29*0.18). Correspondingly, the results imply an average increase of 4.8 pp in insurance coverage (26.4*0.18), which would entirely

eliminate the pre-ACA disparity in coverage between the least and most affluent market quintiles (-4.7 pp). In contrast, we estimate a small and statistically insignificant increase in private coverage, implying an increase of 0.6 percentage points (3.4*0.18) on average. In fact, we can rule out an increase of greater than 1.5 pp (8*0.18) in private coverage, which would make a negligible difference to the 30 pp gap in private coverage between the least and most affluent market quintiles. Nevertheless, this result moderates the takeaway from the RD-DD results that the Medicaid expansion crowded out private payers.[23]

Second, the decline in self-pay is less than half the increase in Medicaid coverage (~2.5 pp). It is still sufficient to eliminate the disparity in self pay between the least and most affluent markets (~2 pp). About 40% of the increase in Medicaid offsets the decline of county indigent programs, strikingly similar to the estimate in the RD-DD approach. Figure 6a presents the event study plot of changes in insurance coverage, using estimates from equation 5b. It clearly shows that the increase in Medicaid coverage is about twice as large as the corresponding decrease in self-pay status, and also there were no differential pre-trends across markets.

C. Utilization (volume and hospital choice)

Table 6 columns 7-10 present the estimated effects on hospital volume (in logs). Unlike in the RD-DD analysis, we are unable to normalize the raw discharges by HSA-year population estimates since we do not have annual estimates of population by HSA. However the concern of spurious results due to the baby boom is diminished in this case since the annual variation in age profile across markets is likely very small relative to the variation in baseline poverty across markets. The estimates in Panel A imply that hospital utilization by non-elderly patients increased by ~4% across hospital stays (Col. 7) and ER arrivals (Col. 10) on average (0.2*0.18, 0.25*0.18). Columns 8 and 9 present results separately for deferrable and non-deferrable stays and intuitively show that the increase in stays is driven mainly by patients who came in with deferrable conditions. This is qualitatively similar to the estimates from the RD-DD approach and suggest that 64-year-olds experienced an increase in utilization that was only slightly greater than that for all non-elderly adults (6% vs. 4%). Figure 6b presents the corresponding event study plot and indicates a sharp increase in volume in 2014, followed by further increases in subsequent years. The plot suggests no differential trends in utilization across markets prior to the ACA.

The implied increase in hospital volume of 4-6% across both our age-based RD-DD and geographic-based empirical approaches agrees well with observed changes in utilization for non-elderly adults over this period. Appendix Figure A. 5 presents the time series of hospital stays and ER arrivals

[23] It is possible that crowd-out was greater among 64-year-olds than among all 21-64-year-olds since their average health care costs are much greater and so there would be more for employers (and possibly employees if any savings were passed on through wages) to gain from dropping coverage for this group than for their much younger counterparts.

(right axis) for patients aged 21-64. The period spans 2011-16, our analysis period. Raw discharges have been normalized by estimated population in this age group by year, so the plot presents utilization rate per 1,000 individuals per year. Consider the case of hospital stays – simply extrapolating the 2011-13 values using a linear trend would predict about 50 stays per 1,000 people in 2016. The observed rate exceeds this prediction by about 3.5 stays per 1,000 people, or 6% of the mean rate over 2011-13 (56.3). If we use the raw discharge volume changes instead, we obtain an observed increase of 5.5%. Similar analysis holds for the ER arrivals.

Table 7 columns 1-3 present corresponding results on changes in hospital shares post-ACA. We examine the change in share by hospital owner type (columns 1-2) and mean risk adjusted mortality score (Col. 3). Although the point estimates are qualitatively in the same direction as the results from the RD-DD analysis, they are smaller in magnitude (e.g. implied decrease in government hospital share is 0.6 pp relative to 1 pp in Table 4 column 1 Panel A) and we cannot rule out effects in either direction. Figure 6c presents the corresponding event study plot on share of hospital stays at private hospitals. It shows a slight increase post-ACA, with an increasing trend. The estimated effect on hospital quality (Col. 3) is particularly noisy. Overall, these results indicate heterogeneity across patients in different age groups, where the sharply estimated effects for 64-year-olds may not be representative of the trend for the entire non-elderly sample.

D. Health

Table 7 columns 4 and 5 present estimated effects on in-hospital mortality for the non-elderly patient group. Again, we primarily focus on effects for the subset of patients discharged with a non-deferrable condition (Col. 5). The results are suggestive of mortality gains, though the point estimate is not statistically significant, as in the RD-DD analysis. The estimate implies an average decrease in mortality of 0.14 pp (0.77*0.18), sufficient to eliminate a quarter of the pre-ACA mortality gap between the poorest and most affluent market quintiles (0.48 pp).

VI. HOSPITAL FINANCES

In this section, we have three goals. First, we document changes in hospital revenue due to the ACA and discuss heterogeneity in effects across hospitals based on their baseline patient mix. Government owned hospitals disproportionately served safety net and self-pay patients pre-ACA, and so the expansion would have a greater impact on them. Second, we quantify the proportion of the revenue increase that can be linked directly to increases in patient volume versus increases in prices. Medicaid reimbursed hospitals for inpatient stays and outpatient visits at about twice the rate that they received from self-paying patients

and county indigent programs.[24] Hence, a substitution to Medicaid from these other sources of coverage theoretically should lead to an increase in average reimbursement rates. Our results on hospital volume in the previous two sections indicated a 4-6% increase in volume of hospital care on average. However, it may vary when we examine at the hospital level, since there was some reallocation of patients away from government hospitals. Third, we test if the influx of public insurer funds spurred capital investment and expansion by hospitals.

A. Empirical strategy

We implement a differences-in-differences research design which uses cross-sectional variation in pre-ACA uninsurance rates across hospitals. The thought experiment is conceptually similar to that used in the geographic analysis where hospitals with a high pre-ACA share of uninsured patients would experience a greater insurance shock relative to hospitals that largely served insured patients. Figure 7 illustrates the magnitude of this variation across hospitals before and after the ACA. Panel A presents a histogram of hospital uninsurance shares pre-ACA, 2008-10, calculated using hospital discharge data. Most hospitals ranged between zero to approximately 30%. Hospitals in the top quintile by uninsurance had 20 percentage point greater baseline uninsurance than hospitals in the bottom quintile. Panel B presents the distribution after the implementation of the ACA, 2014-16. The range noticeably shrank, with most hospitals now below 15%.

Equation 6a presents the estimating equation for this approach. We deploy annual data on hospital finances collected by OSHPD over the period 2011 to 2016, as described in section III.C, and correspondingly perform this analysis at the hospital-year level. To mitigate the influence of small outlier units, we weight each hospital observation by the number of pre-ACA discharges in 2008-10.

$$Y_{ht} = \alpha_h + \gamma_t + \chi \cdot \text{Uninsured}_{h-0810} \cdot T_t + \epsilon_{ht} \qquad (6a)$$

The key identification assumption is the absence of differential pre-trends in finances across hospitals at different levels of baseline patient uninsurance shares. In order to test for the presence of pre-trends, we also estimate the flexible dynamic specification 6b. Note that this analysis quantifies effects of the ACA insurance expansion net of patient sorting across hospitals.

[24] Surprisingly, hospitals received similar reimbursement from self-pay customers, as from those covered by county indigent programs. This is consistent with the finding by Gruber and Rodriguez (2007) that providers are able to recover similar or more revenue from self-paying patients.

$$Y_{ht} = \alpha_h + \gamma_t + \sum_{\substack{s=2011 \\ \neq 2013}}^{s=2016} \chi_s \cdot \text{Uninsured}_{h-0810} \cdot I(t = s) + \epsilon_{ht} \quad (6b)$$

To estimate differences across hospital types we also estimate a differences-in-differences-in-differences model in equation 6c where we interact an indicator for being a government hospital, $Govt_h$, with $\text{Uninsured}_{h-0810} \cdot T_t$ and the year fixed effects γ_t. The latter flexibly allows government hospitals to evolve along a different trend. We discuss results from this model wherever noteworthy. [25]

$$Y_{ht} = \alpha_h + \gamma_{1t} + \gamma_{2t} \cdot Govt_h + \chi_1 \cdot \text{Uninsured}_{h-0810} \cdot T_t + \chi_2 \cdot \text{Uninsured}_{h-0810} \cdot T_t \cdot Govt_h + \epsilon_{ht} \quad (6c)$$

B. Hospital revenue

Table 8 Columns 1-6 present results on revenue, expressed in thousands of dollars per bed from estimating these equations. We present results on total revenue as well as from different payers (Medicaid – including managed care, Private, and all others) and types of services (inpatient vs. outpatient). All revenue variables are deflated to be in 2016 dollars (in thousands) using the CPI-U and normalized by the hospital's average number of licensed beds in the baseline period.[26] Panel A presents results from estimating equation 6a for the entire sample, while Panel B presents triple difference results to examine differences between government and privately-owned hospitals.

The key takeaway on hospital revenue is the large differential increase in Medicaid revenue for hospitals with a higher baseline share of uninsured patients. The average hospital generated an increase of about $55,000 (508*0.11) in annual Medicaid revenue per bed, which is 27% of the pre-ACA mean level. This estimate implies an incremental $4.1 billion of Medicaid payment to California hospitals each year over 2014 to 2016[27]. The estimated effect on total revenue for the average hospital is similar in magnitude, ~$50,000 increase per bed (471*.11), with a small increase from private payers being nullified by decreases elsewhere. Since total revenue was about five times as large as Medicaid alone, this increase represents only 5% of the pre-ACA mean. However, it eliminates more than 10% of the pre-ACA gap of -

[25] The results by hospital type tend to be noisy and the estimates for government and private hospitals are typically not statistically indistinguishable due to the imprecision. However, there are a few instances in which the estimates for government hospitals are statistically significant but are statistically indistinguishable from privately-owned hospitals, which are not statistically significant. Since this is not discernible in the table, we will highlight these results whenever noteworthy.

[26] To account for outliers in the financial data, we winsorize the top 1% of revenues, volume measures (stays and visits), and expansion variables (capital expenditures and license beds). For operating margin, we also winsorize outliers in the bottom 1% of values since some hospitals reported extremely negative margins. We winsorize by year, hospital type (government and privately-owned), and when applicable by payer type (e.g. Medicaid, Private, etc.) and type of service (inpatient vs. outpatient). We compute total revenue as the sum of the winsorized components rather than winsorizing it independently so that the coefficients add up across columns. Furthermore, by winsorizing values by hospital type, we eliminate the possibility that outliers of one hospital type drive our results in Panel B.

[27] Multiplying 55,000 increase in Medicaid revenue per bed per year for the average hospital with 235 beds per hospital and 320 general acute care hospitals in the sample = $4.1 billion.

$385,000 between top and bottom quintile hospitals by baseline uninsurance. Figure 8a presents event study plots obtained by estimating equation 6b. The flexibly estimated annual estimates are consistent with the average point estimates discussed above. Hospitals with greater baseline uninsurance appear to have a decreasing trend of Medicaid revenue in the pre-ACA period, but it reverses sharply after 2013. This suggests that our point estimates may even understate the magnitude of the increase in Medicaid revenue due to the ACA.

Government-owned hospitals disproportionately served county indigent patients in the pre-ACA period – 15% of their patients versus 3% at privately-owned hospitals, as well as more self-pay patients (14% vs. 8%). Hence as a group, government hospitals had much more to gain from the insurance expansions. The results by owner type in Table 8b confirm that government hospitals gained more from the expansion. The average government hospital experienced a ~$200,000 increase in revenue per bed (663*0.29), about 25% of the mean pre-ACA level for government hospitals. In contrast, the average private hospital experienced a ~$90,000 increase in revenue per bed (793*0.11), representing an 9% increase relative to their pre-ACA mean.

Previous studies argue that public hospitals have soft budget constraints (Duggan, 2000; Baicker and Staiger, 2005) and hence the increased revenue due to Medicaid would be offset by an equivalent reduction in public subsidies. Our results appear to contradict these previous studies, however future reductions in DSH payments may mitigate the revenue gains for public hospitals.

C. Price vs. Volume and profitability

Table 8 columns 7-10 examine effects on volume and average 'price' (mean revenue per discharge) components to help explain their role in the revenue effects described above. The nature of the data makes it necessary to examine quantity and price separately by inpatient and outpatient services. Column 11 presents the results on total *reported* operating margin, computed by dividing the difference between operating revenue and costs by operating revenue.[28] Examining price and volume separately helps clarify that the aggregate increase in revenue is driven entirely by price, consistent with Medicaid replacing uncompensated care. A hospital with 10% greater uninsurance share now receives $1,000 more per inpatient stay, sufficient to eliminate 12% of the pre-ACA disparity between top and bottom quintile hospitals by uninsurance (-$8,600).

Hospitals with greater baseline uninsurance *lost* patient volume relative to those previously serving a lower share of uninsured patients. Since baseline uninsurance was much lower for private hospitals (by 18 pp), this further corroborates previous results indicating a shift in patient volume from government to

[28] Operating revenue is largely composed of patient revenue (90%+), but also includes non-patient revenue due to food and merchandise sales. It does not include investment income. Operating costs are opaque since we do not observe its components.

private hospitals. The coefficient of -5.8 implies that the average government hospital has a decrease of 1.1 stays per bed (-5.8*0.18) relative to the average private hospital, about 3% (1.1/44) of the mean volume. This is strikingly similar to the estimated loss in government hospital share (-3.5*0.18/16 = ~4%) in the geographical analysis, reported in Table 7. Figure 8b presents event study plots illustrating the contrast in patterns for price and volume. Reassuringly there is no evidence of differential trends prior to the expansion.

Driven by the increased average reimbursement per discharge, hospitals with greater baseline uninsurance received a large boost in profitability. The average hospital gained about 4 pp in operating margin (35*0.11). Back of the envelope calculations imply that this translates to a gain of ~$9 million for the average acute care hospital.[29] If we aggregate this across the 320 hospitals in our sample, it implies a collective increase of $2.8 billion in hospital operating profit due to the ACA, or about 70% of the estimated increase in Medicaid revenue.

The increase in price and profitability discussed above is clearly driven by government hospitals. The average government hospital experienced an increase of ~$5,000 in reimbursement per inpatient stay (16*0.28) and 12 percentage points in operating margin (40*0.28) due to the Medicaid expansion, both of these estimates are statistically significant at the 1% level. All these results account for any reductions in government DSH support and hence imply a large windfall for government hospitals due to the ACA. In contrast, the estimated effects for private hospitals are much smaller and statistically insignificant. Figure 8c presents the corresponding event study plot of effects on operating margin by hospital type.

Overall, the results on hospital revenue and profitability are consistent with lobbying by hospital, physician and nursing industry associations to prevent repeal of the Medicaid expansion as well as to continue delays in cutting federal DSH support.[30]

D. Hospital expansion

The increase in revenue and profitability does not seem to encourage expansion; we find no evidence of differential increase in capital investments (column 12) or bed capacity (column 13). This is not entirely surprising as only a three year follow-up period may preclude finding effects on long-term investment decisions.

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[29] Gain in operating profit is obtained by using increases in operating margin on the base revenue and factoring in number of beds, all for the average hospital: 0.35 coefficient * 0.11 mean uninsurance * $968,000 mean revenue per bed * 235 beds = $8.8 million. The mean operating profit in the pre-ACA period was 0.023*968,000*235 = $5.2 million. These underlying mean values are reported in Table 8 and notes. The pre-ACA mean operating margin for hospitals with non-negative values was 8%.

[30] See for example a letter by the President of the American Hospital Association (AHA) to US Congress opposing the American Health Care Act that repealed the ACA (available at http://www.aha.org/presscenter/pressrel/2017/030817-pr-acha.shtml). More details of its lobbying against ACA repeal discussed at http://www.modernhealthcare.com/article/20170317/NEWS/170319906. Hospital, physician and nursing industry bodies donated disproportionately more to Democrats in the 2018 midterm election. https://www.modernhealthcare.com/article/20181106/NEWS/181109952.

VII. DISCUSSION

We note three caveats related to our data and research designs that impose the following limitations when interpreting our results. First, the RD-DD results are estimates of local average treatment effects and most relevant to individuals close to age 65. The near elderly group of patients is policy relevant since it may be the next group to benefit from an expansion of Medicare.[31] However, they may not represent the average effect for the entire non-elderly group. Reassuringly, the results using geographic variation in poverty for all adults aged 21-64 corroborate key findings from the RD-DD analysis.

Second, we cannot identify the mechanisms causing patient sorting toward privately-owned hospitals. Our interpretation of the result – bolstered by corroborating evidence from ER arrivals – is that it is driven by patient preference for better care, but an alternative possible explanation is that managed care plans (which account for the majority of Medicaid enrollees) are more likely to include (exclude) private (government) hospitals from their provider networks. The evidence on systematic exclusion is weak, at least for exchange plans. Haeder, Weimer and Mukamel (2015) examine the breadth, access and quality of insurer networks offered on California's ACA exchanges relative to commercial health plans. They find that exchange plan networks are narrower but do not correlate with hospital ownership or quality. Thus, it seems unlikely that narrow networks are the primary reason.

Third, our results estimate short-run effects of the insurance expansion since our data spans only three years post-ACA. The flexibly estimated annual coefficients may provide helpful guidance on how long-term effects may differ. Notably, the trends of increase in volume of care and patient sorting toward privately-owned hospitals strengthened between 2014 and 2016. This may represent an ongoing process of newly insured individuals learning how to choose providers and obtain care. This process implies continuation of volume growth and patient sorting over the next few years and therefore greater long-run effects, including on patient health.

VIII. CONCLUSION

The ACA authorized the largest expansion of publicly funded insurance since the introduction of Medicare and Medicaid in the 1960s. This intervention offers a unique opportunity to quantify the effects of public insurance expansions on providers and patients in a modern setting. In this paper we focused on the hospital sector. Using the universe of all hospital stays and ER visits, as well as data on hospital finances over 2008-16, we apply several complementary research designs to quantify costs and benefits of the ACA in the most populous state in the U.S.

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[31] Since the 1990s several unsuccessful legislative proposals have been floated to expand Medicare to cover near-elderly individuals aged 55-64. The latest one (still on-going) was introduced in August 2017 in the US Senate. See https://www.stabenow.senate.gov/news/senator-stabenow-announces-medicare-at-55-act for more details.

We find that the Medicaid expansion almost completely replaced existing county run safety-net programs in California. This was a transfer from federal taxpayers to local taxpayers (mostly counties) that previously bore these costs. Further, since Medicaid reimbursed hospitals at twice the rate that the safety net programs did, this was also a large transfer from taxpayers to hospitals. Hospitals increased revenue and profitability, with government hospitals receiving larger gains, even though they lost some patient share to privately-owned hospitals post-ACA. Understanding how the additional revenue was and will be deployed by hospitals remains an important question for future research.

We fail to find robust improvements in patient health, even though volume of hospital care has increased substantially and patients are more likely to receive care at privately-owned and better-quality hospitals. We argue that this reallocation of patient volume is demand driven, though our research design cannot distinguish supply and demand mechanisms and we leave this exercise for future work. The increase in stays and ER visits is about three times what we would predict based on partial equilibrium insurance experiments, suggesting that general equilibrium effects are large. We speculate that supply side responses are responsible, though the channels need to be investigated in future research.

The effects that we estimate for patients and hospitals were driven primarily by the expansion of Medicaid. These results take on additional significance when one considers that more than a dozen states have recently followed California's (and 24 other states) lead in 2014 and elected to expand their Medicaid programs. An additional 14 states have, as of this date, not expanded their Medicaid programs. The variation across states in decisions likely partially reflects uncertainty about the effects. We help fill this evidence gap as more states consider whether to expand public health insurance in the years ahead.

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FIGURES AND TABLES

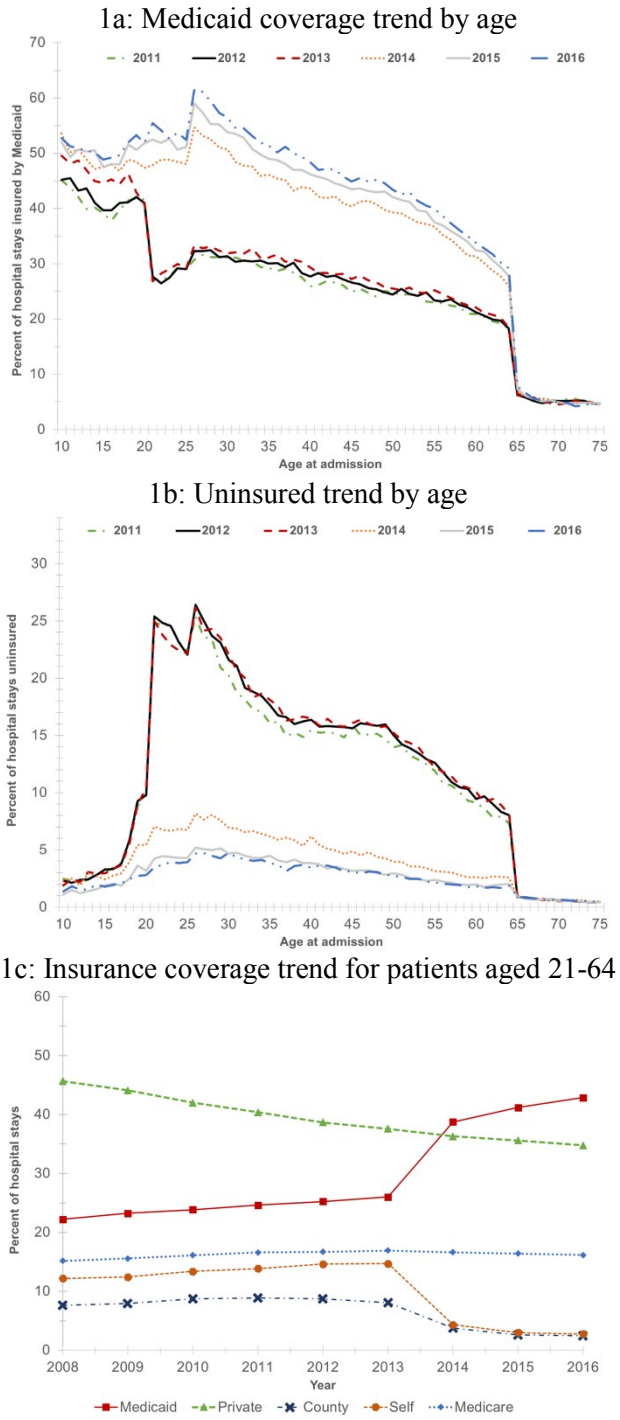
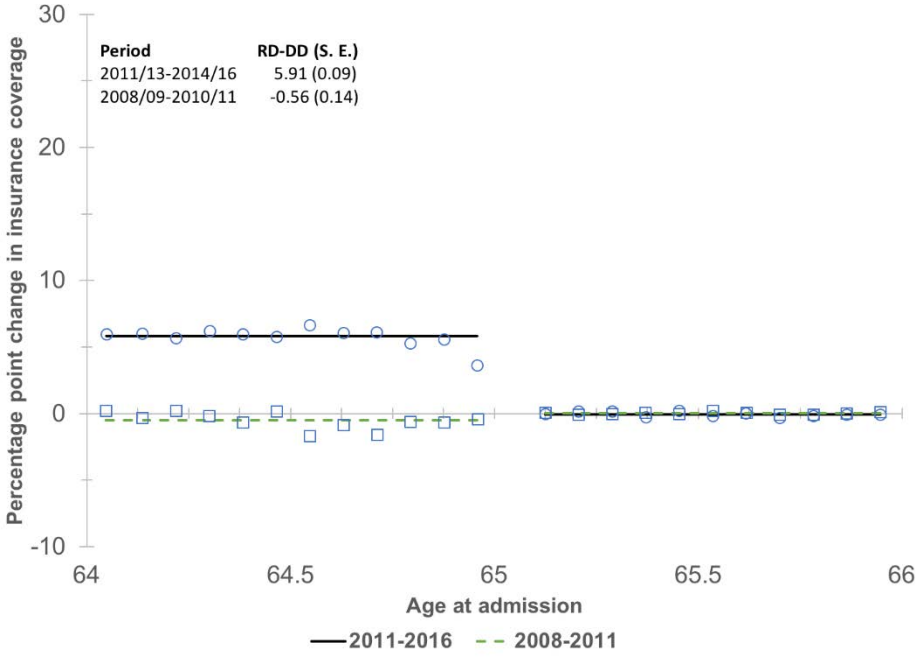


Figure 1: Insurance coverage for hospitalized patients

Note: This figure presents trends in primary insurance coverage among hospitalized patients in California as recorded in hospital discharge data. Panels A and B present the percentage of hospital stays covered by Medicaid and uninsured (i.e. self-pay, county indigent or charity care), respectively, by year between 2010-16 and single year of age for ages 10-75. Panel C presents shares of different primary payers between 2008-16 for patients aged 21-64, the group primarily affected by the ACA. The sample excludes cases related to pregnancy and deliveries, is limited to General Acute Care hospitals and excludes individuals residing in zip codes outside California.

2a: Elderly patients



2b: Young patients

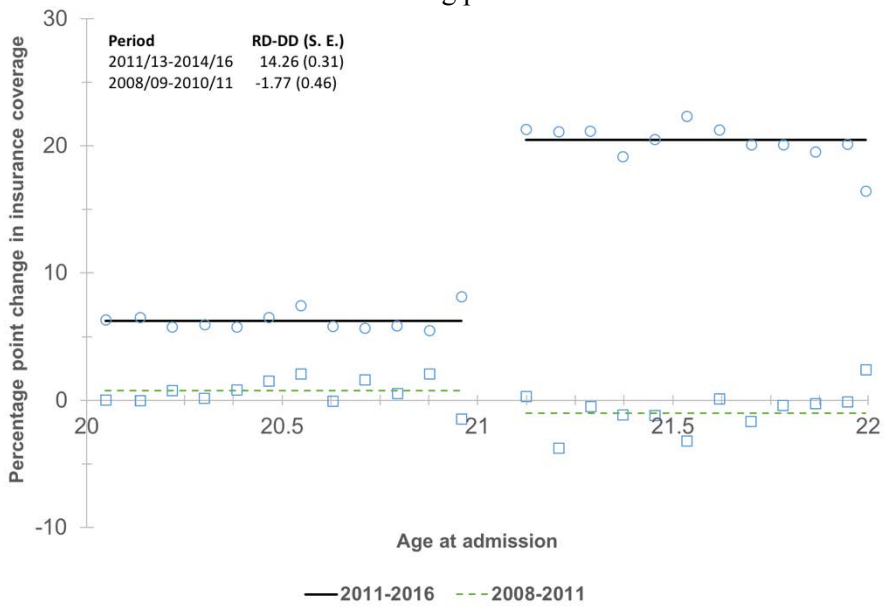


Figure 2: Insurance coverage

Note: This figure presents the percentage point change in insurance coverage among hospital patients and corresponding fitted values by month-of-age. These were obtained by estimating equation 3a on discharge level data as described in Section IV.A for the sample of elderly (Panel A) and young (Panel B) patients, respectively. The treated groups are those aged 21 (young) and 64 (elderly). Both panels present results for 2011-16 (circles, solid line), and results from 2008-11 (squares, dashed line), which serves as a falsification exercise. The dependent variable – insurance coverage – is defined by the patient not being self-pay, on charity or county indigent care and values are either 0 or 100. All models control linearly for age and include year fixed effects. To improve presentation, we collapse the data to month-of-age cells. We also note the estimated change in discontinuity, which is the coefficient on $d_i.T_t$ in Equation 3a. Standard errors are clustered by day-of-age cell. Figure A. 4 presents a more detailed version showing changes in shares of specific payers.

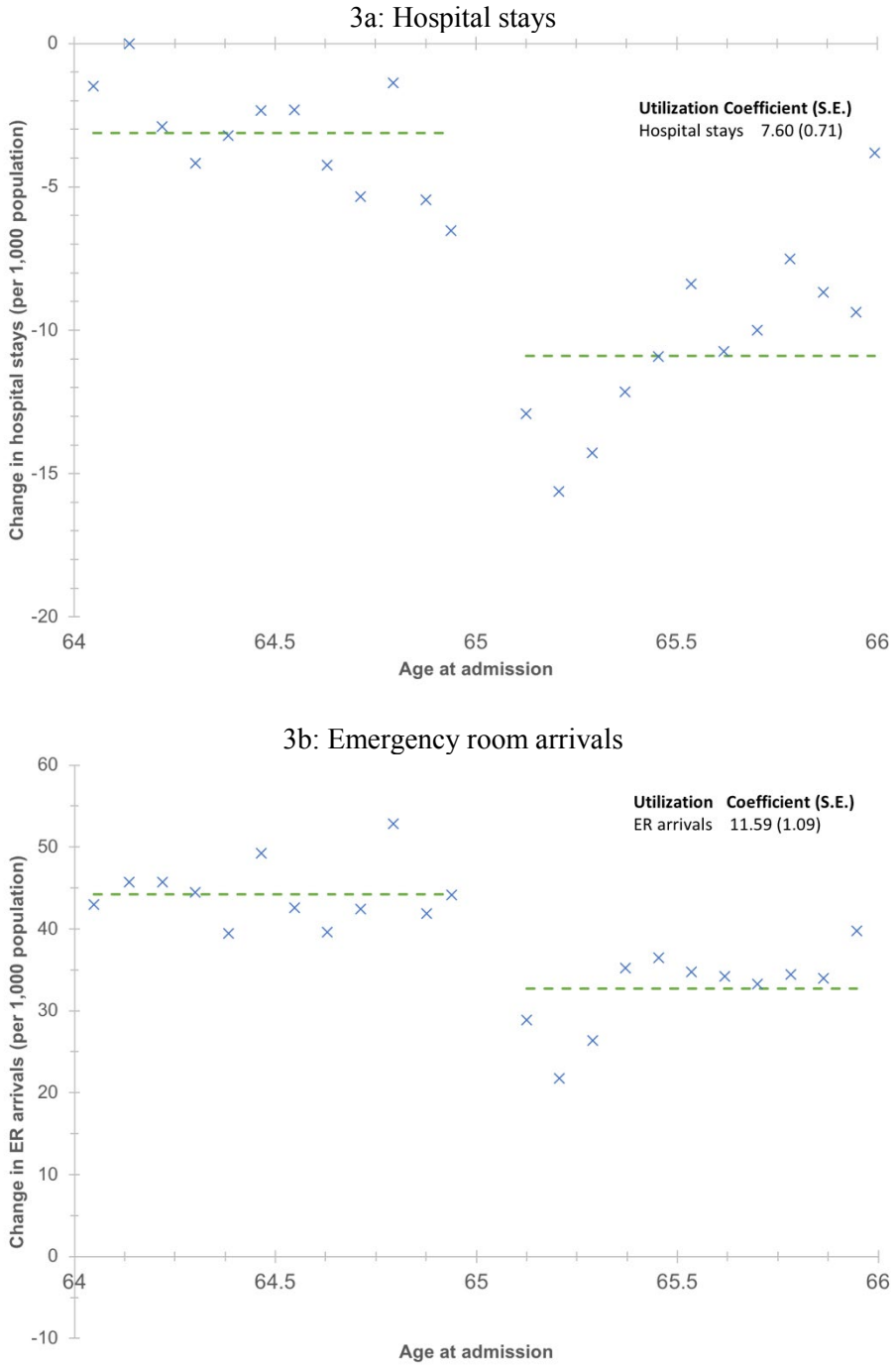
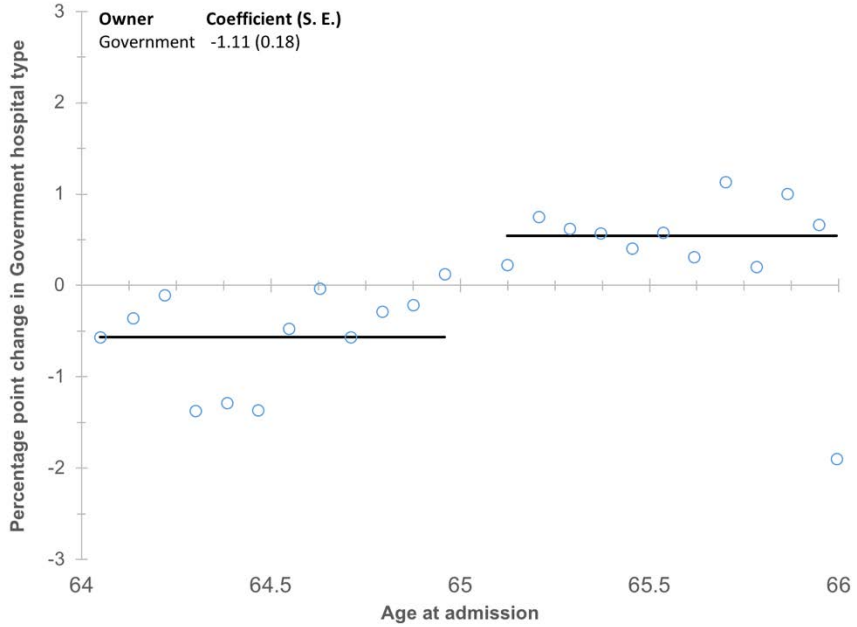


Figure 3: Utilization rate (per 1,000 people per year)

Note: This figure presents the mean post-ACA change in number of hospital stays (Panel A) and ER arrivals (Panel B), i.e. including those patients who were eventually admitted as inpatients, per 1,000 CA residents in each month-of-age cell. Raw discharges were converted to utilization rates using California population estimates, obtained from the National Cancer Institute. The regressions were estimated on data at day-of-age - year level, but for presentation clarity we collapse data to month-of-age level. Patients aged 64 constitute the treated group. We also plot corresponding fitted values (dashed lines) obtained by estimating Equation 4, as described in Section IV.C. All models control linearly for age and include a full set of year fixed effects. We also note the estimated change in discontinuity, which is the coefficient on $d_i.T_t$ in equation 4. Standard errors are clustered by day-of-age cell. Figure A. 5 presents corresponding plots for young patients.

4a: Owner type



4b: Standardized mortality score

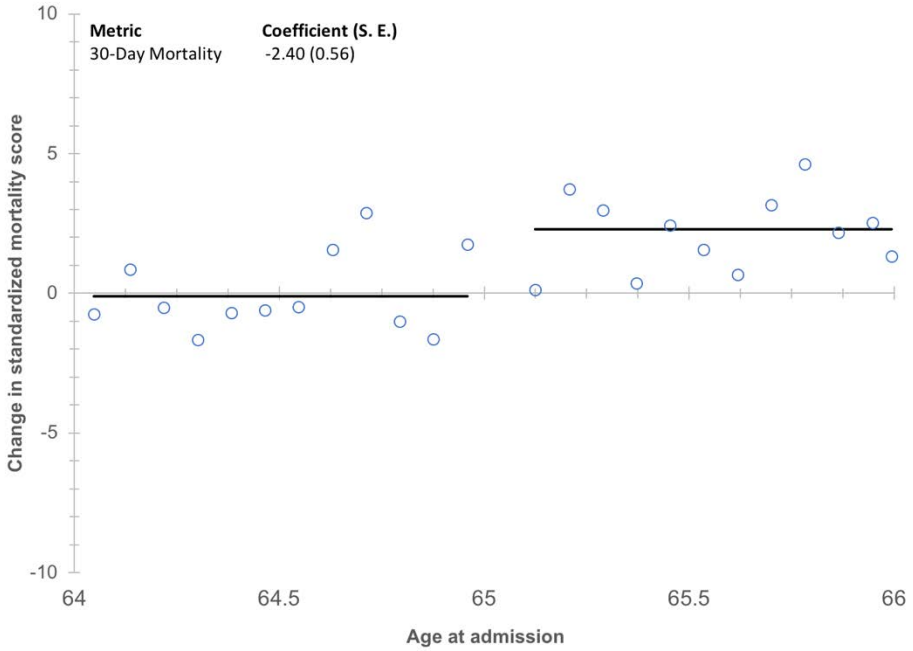


Figure 4: Hospital choice: Owner type and quality

Note: This figure presents post-ACA percentage point change in the percent of hospital stays at government hospitals (Panel A) and in mean standardized mortality score for patients, a variable with mean 0 and SD of 100 (Panel B). We also plot fitted values obtained by estimating equation 3b on case level data as described in Section IV.A. Patients aged 64 constitute the treated group. Regressions were estimated at the day-of-age - year level but for presentation clarity the data is collapsed to month-of-age level. Regressions control linearly for age and include year fixed effects. The estimated change in discontinuity, which is the coefficient on $d_i.T_t$ in equation 3b, is also presented. Standard errors are clustered by day-of-age cell. Figure A. 7 presents the corresponding plots for young patients.

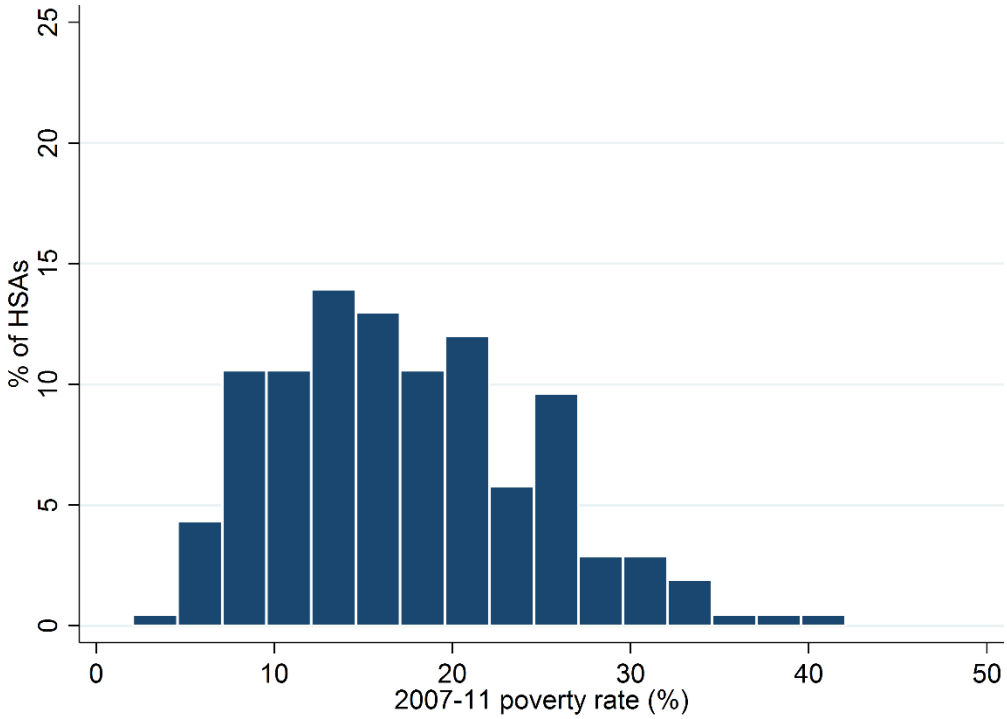
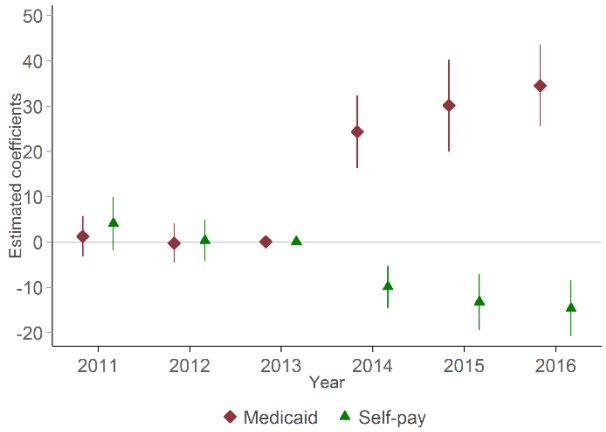


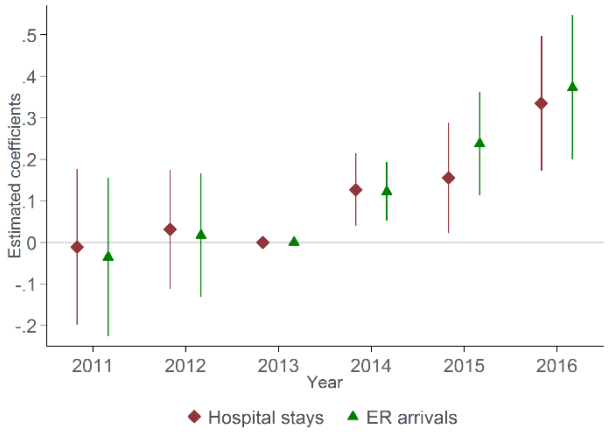
Figure 5*:* Distribution of poverty rates across Hospital Service Areas

Note: This figure presents a histogram of poverty percentage across Hospital Service Areas (HSAs). Poverty share is defined as the share of population < 125% of federal poverty level, as estimated by the 2007-11 five-year American Community Survey. There are 210 HSAs in California and they are defined to approximate local markets for hospital care and typically contain only one hospital. For more details on HSAs refer to http://www.dartmouthatlas.org/tools/faq/researchmethods.aspx. The San Francisco bay area has a disproportionate concentration of low poverty markets, for example – San Ramon (2%), Pleasanton (5%), Walnut Creek (6%), Burlingame, San Mateo and Fremont (7%), Mountain View and Livermore (8%). High poverty markets are distributed across the state with some concentration in central California along interstate 5 – Lindsay (41%), Delano (38%), Corcoran (35%), Lake Isabella (33%), Dinuba, Porterville (31%), and Merced (27%). The difference in poverty rates across HSAs was 18.3 between the least and most affluent quintiles and coincidentally the mean across markets was also 18.4. We exploit this variation in poverty across markets to identify the effects of the ACA on non-elderly adult hospital use.

6a: Medicaid vs. Self-pay



6b: Hospital utilization (log volume)



6c: Hospital choice (owner type)

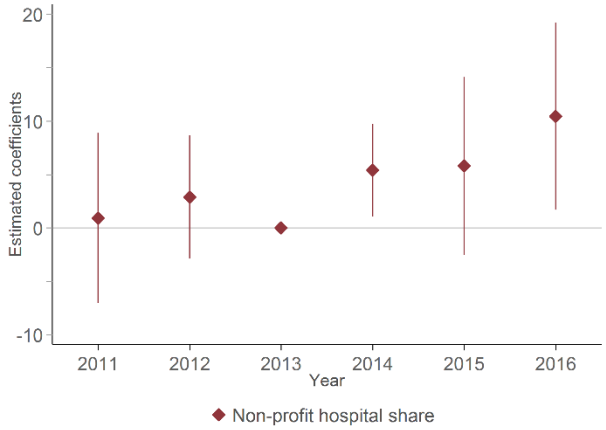
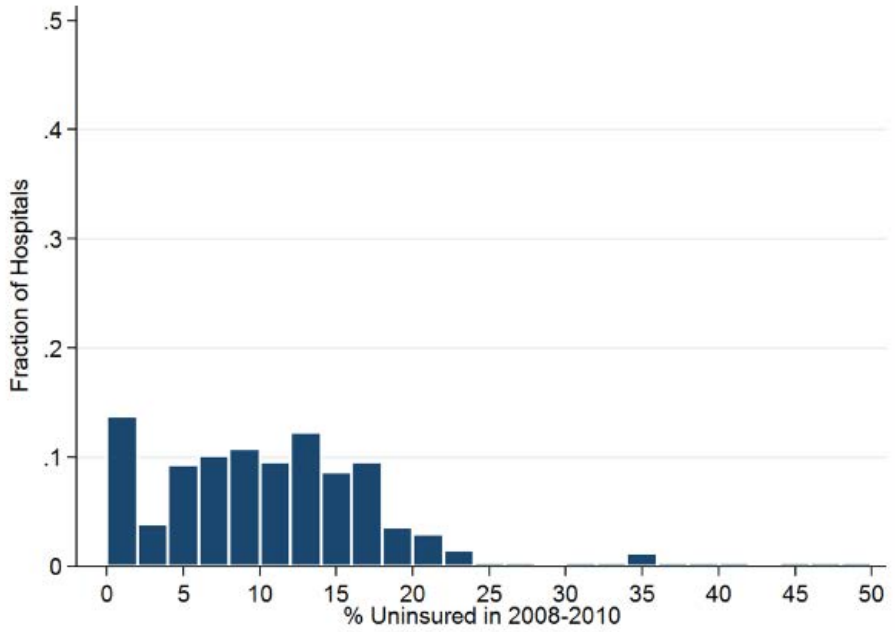


Figure 6: Results using poverty variation

Note: This figure presents event studies from the geographic analysis. Each panel plots coefficients on the interaction of Pov_j and indicator for each year s from 2011-16 (relative to 2013), obtained by estimating equation 5b with Medicaid or self-pay status (Panel A), log of stays or ER arrivals (Panel B), and share of stays at non-profit hospitals (Panel C) as outcome variables. Bars indicate confidence intervals at the 95% level. Pov_j is the estimated share of people in HSA j with income below 125% of the federal poverty level as reported by the ACS 2007-11 5-year estimates. These models are estimated using data from the sample of all patients aged 21-64 over 2011-16, about 7.5 million stays and 40.3 million ER arrivals. All models are estimated with data collapsed to the HSA-year level and include HSA and year fixed effects. HSAs are weighted by pre-ACA non-elderly population. Mean poverty rate was 0.183.

7a: Hospital uninsurance distribution (2008-2010)



7b: Hospital uninsurance distribution (2014-2016)

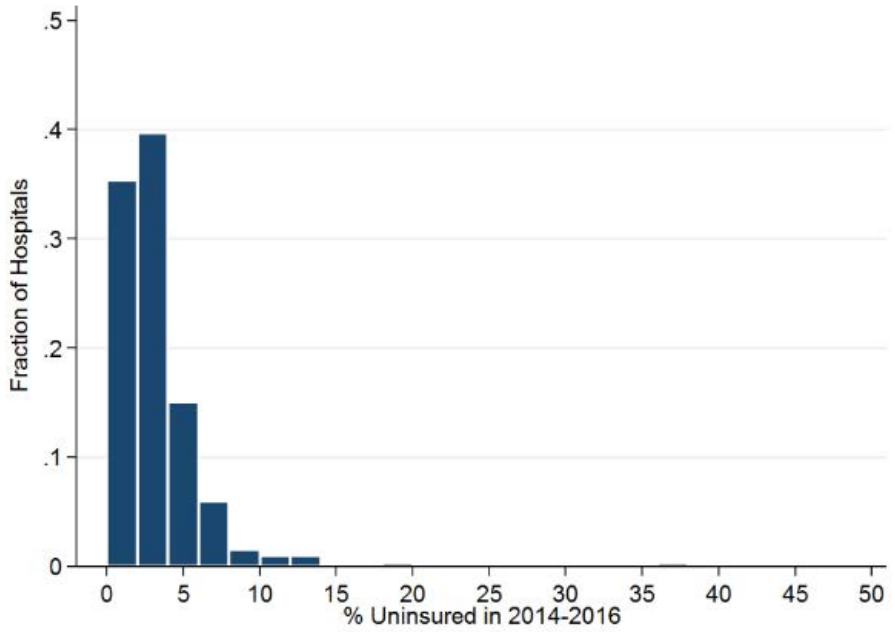


Figure 7: Hospital uninsurance distribution

Note: This figure presents histograms (by hospital) of the percentage of patients that did not have insurance coverage, in 2008-10 (Panel A, pre-ACA) and 2014-16 (Panel B, post-ACA), respectively. Uninsured patients are those coded as self-pay, county indigent or charity care. These histograms were computed using the discharge data on hospital stays and make use of the same sample restrictions as in our main analysis – limit to non-elderly adults (aged 21-64) in general acute care hospitals, exclude childbirth related cases, and exclude cases for individuals with zip codes missing or located outside California. The percent uninsured is top coded at 50% (one hospital in 2008-10). We use this variation in uninsurance across hospitals to identify effects of the ACA on hospital finances.

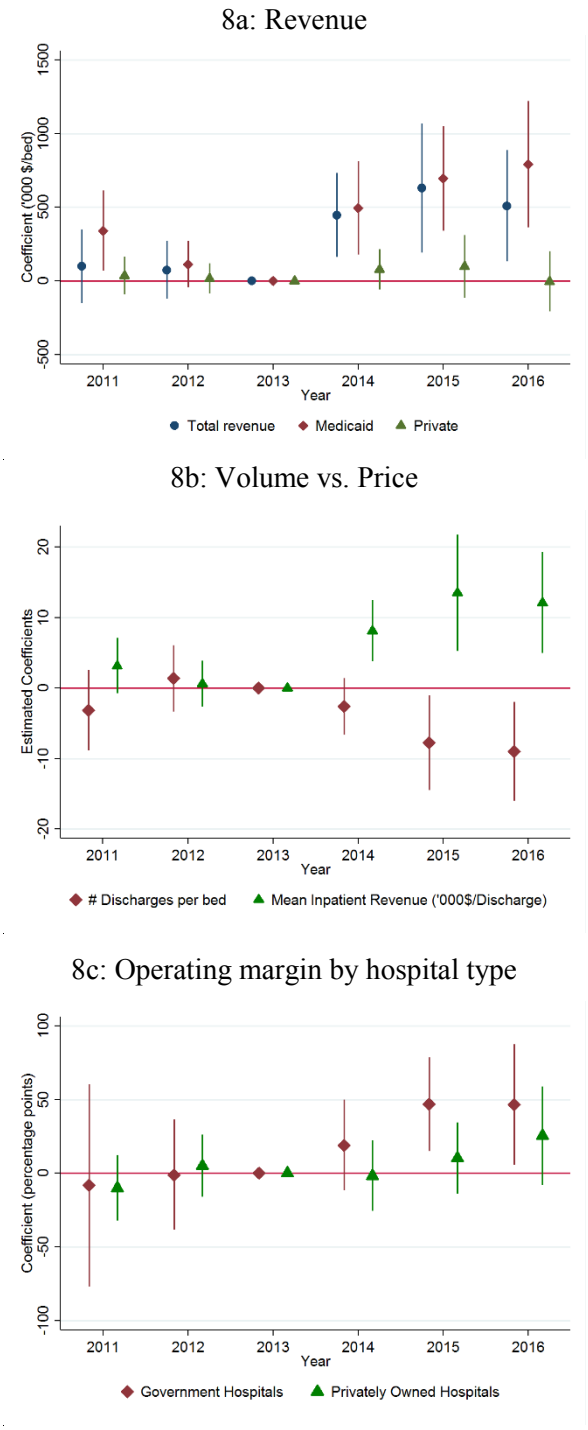


Figure 8: Effects on hospital finances

Note: This figure presents event study results using hospital-year finances data from OSHPD. We plot coefficients on the interaction of $\text{Uninsured}_{h-0810}$ with indicators for each year s from 2011-16, omitting 2013 as the reference year, obtained by estimating equation 6b with various outcome variables. Bars indicate confidence intervals at the 95% level. $\text{Uninsured}_{h-0810}$ is the share of hospital h patients coded self-pay, charity or county indigent over 2008-10. In Panel A the revenue values have been deflated to be in thousands of 2016 dollars. Panel B presents patterns for number of inpatient stays per bed (volume) and mean revenue per discharge in thousands of 2016 dollars (price). Panel C presents results on operating margin obtained by estimating models separately on the sample of government and private hospitals. Prices here refer to mean reimbursement per hospital stay. All models include hospital and year fixed effects. Hospital observations are weighted by their number of discharges in 2008-10.

Table 1: Summary Statistics

	Hospital stays				*ER arrivals*			
Panel A: Regression discontinuity sample	Ages 20.0 - 21.9		Ages 64.0 - 65.9		Ages 20.0 - 21.9		Ages 64.0 - 65.9	
	2011-13	2014-16	2011-13	2014-16	2011-13	2014-16	2011-13	2014-16
All observations	78,317	71,713	276,657	280,467	927,661	1,039,974	605,900	731,062
Admitted through ER	53,935	49,907	169,462	179,898	N/A	N/A	N/A	N/A
Medicaid	34.0	51.1	12.4	17.6	28.0	46.4	12.1	19.4
Private	39.8	37.3	29.8	27.3	35.8	33.5	29.2	26.9
Uninsured	17.7	4.4	4.4	1.5	30.1	14.8	9.5	4.3
County	5.1	0.4	1.8	0.2	2.9	0.7	2.7	0.5
Self-pay	12.6	4.0	2.6	1.4	27.2	14.1	6.8	3.8
Utilization per 1,000 pop.	24	23	134	127	281	334	293	332
Government hospital	18.5	17.2	11.3	11.3	17.1	15.6	15.5	14.9
In-hospital mortality	0.6	0.6	2.6	2.7	0.1	0.1	1.2	1.0
In-hospital mortality (non-deferrable)	1.1	0.8	4.1	3.3	0.1	0.1	1.8	1.2
Panel B: Non-elderly sample (21-64)	2011-13	2014-16			2011-13	2014-16		
Discharges	3,791,199	3,737,040			18,578,973	21,731,937		
Non-deferrable only	530,205	502,265			2,037,006	2,413,387		
Medicaid	25.3	40.9			24.4	43.2		
Private	38.9	35.6			34.6	32.4		
Uninsured	14.4	3.3			26.6	11.3		
County	5.8	0.4			5.4	0.9		
Self-pay	8.6	2.9			21.2	10.4		
Government hospital	15.8	14.8			18.7	16.7		
Mortality (full sample)	1.60	1.64			0.35	0.30		
Mortality (non-deferrable)	2.84	2.32			0.66	0.44		

Note: This table presents descriptive statistics from the samples used in the main analyses of the paper. Panels A and B present statistics for the samples in the regression discontinuity analysis and geographic analysis respectively. Both samples begin with the universe of all discharges and use three sample restrictions – 1) only general acute care hospitals 2) exclude pregnancy and delivery related cases and 3) exclude patients with missing or out-of-CA zip codes. Fraction uninsured includes patients coded as self-pay, charity or county indigent coverage. Panel A focuses on cases pertaining to ages 20-21 (both inclusive) or 64-65, and all ages are at time of admission. ER arrivals include ER visits and hospital stays that originated in the ER. To calculate utilization, we normalize number of annual stays/ER arrivals by the population in relevant age-year cell obtained from the National Cancer Institute, hence these are measures of utilization per 1,000 people per year. Government hospitals include city, county and district but not federally owned hospitals. We present in-hospital mortality for the full sample as well as the sample of patients discharged with non-deferrable conditions (i.e. conditions like Heart attack, Pneumonia, Stroke, etc.), for which patients need urgent hospital care and hence are less susceptible to selection concerns.

Table 2: Insurance coverage (hospital stays)

Panel A: Ages 64 - 65	(1)	(2)	(3)	(4)	(5)	(6)
	Medicaid	Private	Misc.	Insured	County	Self-Pay
Age 64 * Post	8.65	-2.56	-0.18	5.91	-3.27	-2.64
	(0.19)	(0.24)	(0.23)	(0.09)	(0.06)	(0.08)
Dynamic Effects						
Age 64 * 2014	7.36	-1.78	-0.11	5.47	-3.18	-2.29
	(0.28)	(0.34)	(0.33)	(0.12)	(0.06)	(0.10)
Age 64 * 2015	8.72	-2.33	-0.32	6.07	-3.31	-2.76
	(0.28)	(0.32)	(0.33)	(0.11)	(0.06)	(0.10)
Age 64 * 2016	9.80	-3.52	-0.12	6.17	-3.32	-2.85
	(0.27)	(0.32)	(0.32)	(0.11)	(0.06)	(0.09)
2011-13 mean (age 64)	18.68	42.77	30.52	91.97	3.50	4.52
Observations	557,124					
Panel B: Ages 20 - 21						
Age 21 * Post	15.78	-0.02	-1.50	14.26	-7.93	-6.33
	(0.50)	(0.50)	(0.28)	(0.31)	(0.16)	(0.28)
Dynamic Effects						
Age 21 * 2014	14.62	-0.33	-0.50	13.79	-7.89	-5.90
	(0.74)	(0.72)	(0.40)	(0.41)	(0.18)	(0.38)
Age 21 * 2015	15.00	0.99	-1.66	14.33	-7.91	-6.42
	(0.72)	(0.70)	(0.39)	(0.36)	(0.16)	(0.33)
Age 21 * 2016	17.81	-0.74	-2.37	14.69	-7.99	-6.70
	(0.74)	(0.69)	(0.38)	(0.34)	(0.17)	(0.32)
2011-13 mean (age 21)	26.95	39.75	7.89	74.59	9.15	16.27
Observations	150,030					

Note: This table presents regression results on changes in insurance coverage using the RD-DD analysis. Coefficients presented are on the interaction of indicator for being in the treated group (age 21 or 64) and post-ACA period in equation 3a. Regressions were estimated on the sample of elderly (Panel A) and young (Panel B) patients respectively, as described in section IV.A. The dependent variable is coverage by specific payer type. Miscellaneous includes Medicare, Government employees and workers' compensation. In each column and panel, the top row presents the average effect, while the dynamic effects present coefficients for each post-ACA year. This table pertains to hospital stays only. All models control linearly for age and include a full set of year fixed effects. Standard errors are clustered by day-of-age cell.

Table 3: Patient volume

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Hospital stays			**ER data**	
	All	Through ER	Not through ER	Deferrable	Non-Deferrable	All arrivals	ER visits
Age 64 * Post	7.78	3.09	4.69	6.47	1.31	11.51	8.42
	(0.71)	(0.55)	(0.46)	(0.64)	(0.29)	(1.12)	(0.95)
Dynamic Effect							
Age 64 * 2014	3.48	0.59	2.89	3.06	0.42	0.03	-0.57
	(0.99)	(0.77)	(0.63)	(0.87)	(0.44)	(1.57)	(1.34)
Age 64 * 2015	10.66	4.63	6.02	8.77	1.88	20.27	15.64
	(0.98)	(0.77)	(0.61)	(0.89)	(0.40)	(1.55)	(1.34)
Age 64 * 2016	9.19	4.05	5.14	7.56	1.64	14.22	10.17
	(0.98)	(0.77)	(0.60)	(0.89)	(0.40)	(1.72)	(1.46)
2011-13 mean (age 64)	127	80	47	103	24	286	207
Observations	4,198						

Note: This table presents regression results on changes in volume of hospital care using the RD-DD analysis. Coefficients presented are on the interaction of indicator for being aged 64 and post-ACA period in equation 4. Regressions were estimated on the sample of elderly patients, as described in section IV.C. The dependent variable is rate of hospital stays or ER arrivals per 1,000 people per year. To generate these utilization rates, we normalize raw discharges by population estimates for each age-year cell obtained from the National Cancer Institute. Column 1 presents the results for all hospital stays. Columns 2 and 3 present results separately based on stays that originated through and not through ERs respectively. Columns 4 and 5 present results on stays for deferrable and non-deferrable conditions respectively. Non-deferrable refers to about 15 conditions such as Heart Attack, Pneumonia, Stroke, etc. that are emergent and require immediate hospital care. Column 6 presents results for all ER arrivals, while column 7 presents results only on ER visits i.e. where the patient was discharged from the ER. All models control linearly for age and include a full set of year fixed effects. Standard errors are clustered by day-of-age cell. Appendix Table A. 4 presents results for young patients.

Table 4: Hospital choice

	(1)	(2)	(3)	(4)	(5)
	Owner type			**Quality score**	
	Non-profit	For-profit	Govt.	Mortality	Readmission
Panel A: Hospital Stays					
Age 64 * Post	0.38	0.72	-1.11	-2.40	-0.80
	(0.25)	(0.20)	(0.18)	(0.56)	(0.56)
Dynamic Effect					
Age 64 * 2014	0.48	0.30	-0.78	-1.46	-1.46
	(0.35)	(0.29)	(0.25)	(0.82)	(0.81)
Age 64 * 2015	-0.20	1.13	-0.93	-2.09	-1.56
	(0.35)	(0.29)	(0.24)	(0.80)	(0.80)
Age 64 * 2016	0.86	0.72	-1.59	-3.59	0.56
	(0.33)	(0.29)	(0.24)	(0.84)	(0.76)
2011-13 mean (age 64)	71.74	15.57	12.69	5.35	-2.02
Observations	557,124	557,124	557,124	461,070	467,106
Panel B: ER Arrivals					
Age 64 * Post	1.42	0.71	-2.12	-1.80	-0.90
	(0.16)	(0.12)	(0.12)	(0.36)	(0.37)
Dynamic Effect					
Age 64 * 2014	0.98	0.61	-1.59	-1.47	-0.66
	(0.22)	(0.17)	(0.18)	(0.52)	(0.52)
Age 64 * 2015	1.40	0.82	-2.21	-0.72	-2.21
	(0.22)	(0.17)	(0.17)	(0.48)	(0.51)
Age 64 * 2016	1.81	0.70	-2.51	-3.10	0.13
	(0.21)	(0.16)	(0.17)	(0.51)	(0.49)
2011-13 mean (age 64)	69.90	12.76	17.34	15.55	0.13
Observations	1,336,962	1,336,962	1,336,962	1,081,170	1,092,758

Note: This table presents regression results on changes in hospital share using the RD-DD analysis. We explore changes on two dimensions – hospital owner type and quality scores. Coefficients presented are on the interaction of indicator for being aged 64 and post-ACA period in equation 3b. Regressions were estimated on the sample of elderly patients, as described in section IV.A. Panels A and B present results for the hospital stays and ER arrivals respectively. The sample for hospital owner type contains ~560,000 discharges while in case of quality scores the sample is smaller (~460,000) since some hospitals are not rated by CMS. The corresponding sample sizes in case of ER arrivals are 1.3 mn and 1.1 mn respectively. The dependent variables are indicators for non-profit, for-profit or government ownership (Columns 1-3) and standardized 30-day mortality and readmission scores reported by CMS in 2009 (Columns 4-5). All models control linearly for age and include year fixed effects. Standard errors are clustered by day-of-age cell. We also estimated a version of column 4 controlling for hospital ownership. Estimates were -1.6 (0.5) and -0.7 (0.4) for hospital stays and ER arrivals respectively. Appendix Table A. 5 presents corresponding estimates for the young patients.

Table 5: Falsification exercise

	(1)	(2)	(3)	(4)	(5)	(6)	(6)	(7)	(8)	(9)	(10)	(11)
	Insurance coverage						***Utilization***		***Hospital choice***		***Health***	
	Medicaid	Private	Misc	Insured	County	Self-Pay	Stays	ER arrivals	Govt.	RA Mort.	Mortality	Mort (ND)
Age 64	9.16	24.87	-39.65	-5.62	2.38	3.24	-21.00	-31.42	1.81	-0.008	0.05	0.19
	(0.32)	(0.50)	(0.69)	(0.18)	(0.10)	(0.15)	(1.25)	(1.66)	(0.25)	(0.010)	(0.13)	(0.42)
Age 64 * Post	0.75	-0.83	-0.48	-0.56	0.22	0.34	-0.82	0.66	0.12	-0.028	0.20	0.20
	(0.22)	(0.31)	(0.30)	(0.14)	(0.08)	(0.11)	(1.07)	(1.56)	(0.20)	(0.022)	(0.11)	(0.33)
2008-09 mean (age 64)	18.00	46.84	28.35	93.20	2.72	4.09	141.06	269.93	12.33	3.71	2.86	4.85
Observations	335,644						2,798		335,644	280,544	280,544	64,039

Note: This table presents results of a falsification exercise for the RD-DD analysis using data from 2008-11 (pre-ACA) imagining a placebo ACA in 2010. Coefficients presented are on the interaction of indicator for being aged 64 and post-2010 in equations 3a, 3b and 4. This exercise provides equivalent estimates to the main estimates on insurance coverage (Table 2), utilization (Table 3), hospital choice (Table 4) and health (Table A. 2) outcomes. All models control linearly for age and include year fixed effects. When examining effects on volume, we collapse the data to the day of age-year level. When examining effects on patient health, models control for patient gender and condition category. Standard errors are clustered by day-of-age cell.

Table 6: Geographic variation in poverty (I)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Insurance coverage						Volume (log)			
	Medicaid	Private	Misc.	Insured	Self	County	All stays	Deferrable	Non-deferrable	ER arrivals
Panel A: Average effect										
Pov. rate * Post	29.34	3.39	-6.35	26.38	-14.07	-12.32	0.199	0.217	0.081	0.249
	(4.21)	(3.88)	(4.31)	(4.81)	(2.19)	(4.46)	(0.06)	(0.06)	(0.08)	(0.08)
Panel B: Dynamic effects										
Pov. rate * 2011	1.21	-2.60	1.84	0.46	4.04	-4.49	-0.011	-0.032	0.132	-0.035
	(2.30)	(4.73)	(2.27)	(3.63)	(3.01)	(2.36)	(0.10)	(0.09)	(0.13)	(0.10)
Pov. rate * 2012	-0.29	2.40	0.76	2.87	0.27	-3.14	0.032	0.011	0.167	0.017
	(2.20)	(2.77)	(1.74)	(2.62)	(2.35)	(1.28)	(0.07)	(0.07)	(0.10)	(0.08)
Pov. rate * 2013	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
Pov. rate * 2014	24.28	5.92	-4.82	25.39	-9.93	-15.46	0.126	0.113	0.220	0.122
	(4.08)	(1.89)	(3.70)	(5.87)	(2.37)	(5.02)	(0.04)	(0.05)	(0.06)	(0.04)
Pov. rate * 2015	30.12	3.66	-5.90	27.88	-13.26	-14.62	0.155	0.164	0.104	0.238
	(5.16)	(2.84)	(4.39)	(6.71)	(3.14)	(5.25)	(0.07)	(0.07)	(0.10)	(0.06)
Pov. rate * 2016	34.52	0.38	-5.74	29.16	-14.71	-14.46	0.335	0.353	0.216	0.374
	(4.59)	(3.23)	(4.87)	(6.49)	(3.15)	(5.08)	(0.08)	(0.08)	(0.18)	(0.09)
Observations	1,254									
Mean value (2011-13)	24.03	40.74	21.04	85.82	8.43	5.75	6,047	5,201	846	29,632

Note: This table presents results from the geographic analysis exploiting variation in poverty rate across hospital service markets (HSAs), as described in Section V.A. This table provides estimates on insurance coverage and volume of care. In the interest of brevity we do not report effects for the full set of outcome variables, but these are available on request. Panel A presents the DD coefficient on interaction of $poverty\ rate \cdot T_t$ from Equation 5a, where poverty rate is the share of non-elderly population below 125% of federal poverty level as reported by 2007-11 ACS 5-year estimates. Panel B presents coefficients from equation 5b flexibly estimated for each year over 2011-16 with 2013 as the reference year. There are approximately 7.5 million stays and 40.3 million ER arrivals, collapsed to the HSA-year level (209 HSAs x 6 years). The volume regressions use log of discharges as the outcome. Non-deferrable refers to the subset of approximately 1 million cases that were for non-deferrable or emergent conditions such as Heart attacks, Pneumonia, etc. All models include a full set of HSA and year fixed effects. HSAs are weighted by pre-ACA non-elderly population. Standard errors are clustered by HSA. The bottom row presents the pre-ACA mean values for outcomes. The mean values for volume are in levels, not logs. The difference in poverty rates between top and bottom quintile HSAs was 0.183 and coincidentally the mean was 0.184.

Table 7: Geographic variation in poverty (II)

	(1)	(2)	(3)	(4)	(5)
		Hospital choice		Health (Mortality)	
	Govt.	Non-profit	Mort. Score	All patients	Non-def
Panel A: Average effect					
Pov. rate * Post	-3.54	5.961	-0.60	-0.29	-0.77
	(3.12)	(4.30)	(6.86)	(0.20)	(0.66)
Panel B: Dynamic effects					
Pov. rate * 2011	4.58	0.934	-4.65	-0.46	-0.67
	(2.59)	(4.06)	(8.65)	(0.25)	(1.03)
Pov. rate * 2012	1.12	2.894	-7.60	-0.12	0.26
	(1.77)	(2.95)	(7.34)	(0.26)	(0.91)
Pov. rate * 2013	REF	REF	REF	REF	REF
Pov. rate * 2014	-3.39	5.412	-3.079	-0.36	-0.31
	(1.83)	(2.22)	(4.31)	(0.25)	(1.11)
Pov. rate * 2015	-1.30	5.809	-6.347	-0.56	-1.99
	(3.75)	(4.24)	(5.96)	(0.29)	(0.93)
Pov. rate * 2016	-0.25	10.463	-4.504	-0.52	-0.34
	(3.40)	(4.48)	(6.05)	(0.30)	(0.93)
Observations	1,254				
Mean value (2011-13)	15.7	68.0	1.6	1.60	2.83

Note: This table presents results from the geographic analysis exploiting variation in poverty rate across hospital service markets (HSAs), as described in Section V.A. This table provides estimates on utilization (choice of hospital type and quality) and patient health (in-hospital mortality). In the interest of brevity we do not report effects for the full set of outcome variables, but these are available on request. Panel A presents the DD coefficient on interaction of $poverty\ rate \cdot T_t$ from Equation 5a, where poverty rate is the share of non-elderly population below 125% of federal poverty level as reported by 2007-11 ACS 5-year estimates. Panel B presents coefficients from equation 5b flexibly estimated for each year over 2011-16 with 2013 as the reference year. There are approximately 7.5 million stays collapsed to the HSA-year level (209 HSAs x 6 years). Models for mortality are also estimated at the HSA-year level, on the entire sample (Col. 4) and sample of non-deferrable cases (Col. 5) respectively. Non-deferrable refers to the subset of approximately 1 million stays that were admitted for non-deferrable or emergent conditions such as Heart attacks, Pneumonia, etc. All models include a full set of HSA and year fixed effects. When examining effects on patient health, models also control for differences in patient gender and condition category. HSAs are weighted by pre-ACA non-elderly population. Standard errors are clustered by HSA. The bottom row presents the pre-ACA mean values for outcomes. The difference in poverty rates between top and bottom quintile HSAs was 0.183 and coincidentally the mean was 0.184.

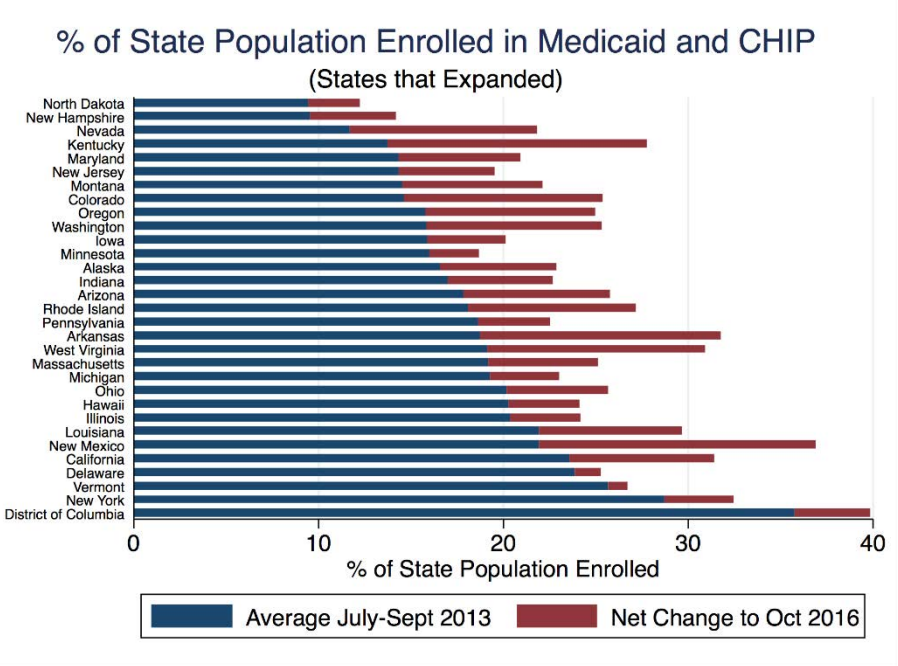
Table 8: Hospital finances and expansion

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total revenue (per bed)						**Volume (per bed)**		**Avg. price / profitability**			**Expansion**	
	Total rev. per bed ('000 $)	Medicaid per bed ('000 $)	Private per bed ('000 $)	All Other per bed ('000 $)	Inpatient per bed ('000 $)	Outpatient per bed ('000 $)	Inpatient Discharges per bed	Outpatient Visits per bed	Mean IP rev. per discharge ('000 $)	Mean OP rev. per visit ('000 $)	Operating Margin (%)	Capital exp. per bed ('000 $)	Number of Beds
Panel A: Average Effects													
Uninsured * Post	471.3	508.3	39.9	-77.0	310.3	161.0	-5.8	-58.2	10.0	0.07	35.1	29.3	-26.0
	(198.0)	(147.8)	(89.1)	(104.8)	(118.9)	(95.4)	(3.6)	(132.8)	(3.4)	(0.2)	(11.1)	(68.6)	(40.2)
Panel B: Triple Difference													
Uninsured * Post	793.5	418.5	217.0	157.9	437.6	355.9	1.6	319.2	5.3	-0.0	12.8	120.0	15.1
	(354.4)	(138.9)	(206.0)	(162.0)	(230.3)	(185.5)	(7.0)	(186.3)	(4.8)	(0.3)	(8.6)	(166.6)	(85.1)
Uninsured * Post * Govt Hospital	-130.1	81.8	-9.2	-202.7	27.8	-157.8	-12.3	-480.3	10.6	0.2	27.7	-41.1	-67.8
	(441.8)	(284.7)	(240.1)	(222.5)	(277.9)	(221.4)	(10.1)	(241.4)	(6.8)	(0.4)	(17.8)	(190.2)	(105.2)
Observations	1,923	1,923	1,923	1,923	1,923	1,923	1,923	1,923	1,923	1,845	1,923	1,923	1,923
Dep. Var. mean (11-13)													
for all hospitals	968	192	411	365	587	380	36	645	18.7	0.8	2.3	82	234
for government hospitals	803	262	255	286	400	402	28	924	15.7	0.5	-10.3	82	211
for private hospitals	1003	177	444	382	627	376	38	585	19.3	0.9	5.0	83	239

Note: This table presents regression results examining effects on hospital finances and expansion by exploiting baseline (2008-10) variation in hospitals' uninsured patient shares, as discussed in section VI.A. Coefficients presented are for the interaction of baseline uninsurance and an indicator for the post-ACA period in equation 6a. All revenue variables are expressed in thousands of dollars deflated to 2016 using the CPI-U. We winsorize values for revenue, volume, and expansion variables at the 99th percentile, and operating margin at the 1st and 99th percentile (more details in footnote 26). Operating margin is reported by hospitals to California as a percentage and is calculated as the ratio of the difference between operating revenue and costs over operating revenue. Panel A presents average effects across all hospitals. Panel B presents results from estimating a triple difference version of equation 6a where Uninsured * Post provides estimates for privately-owned hospitals and the sum of Uninsured * Post + Uninsured * Post * Govt Hospital provides estimates for government hospitals. The bottom rows present the number of observations (e.g. ~320 hospitals x 6 years) and mean value of each dependent variable pre-ACA, i.e. 2011-13 overall and by hospital type. 78 hospitals have no outpatient visits or revenue and hence drop out when examining mean revenue per outpatient visit. All models include a full set of hospital and year fixed effects. Hospital observations are weighted by their number of discharges in 2008-10. Standard errors are clustered by hospital. The mean baseline share of uninsured patients across all hospitals was 0.11. It was 0.288 and 0.108 for government and private hospitals respectively.

A. APPENDIX: FOR ONLINE PUBLICATION

A.1a: Medicaid share in expansion states



A.1b: Medicaid share in non-expansion states

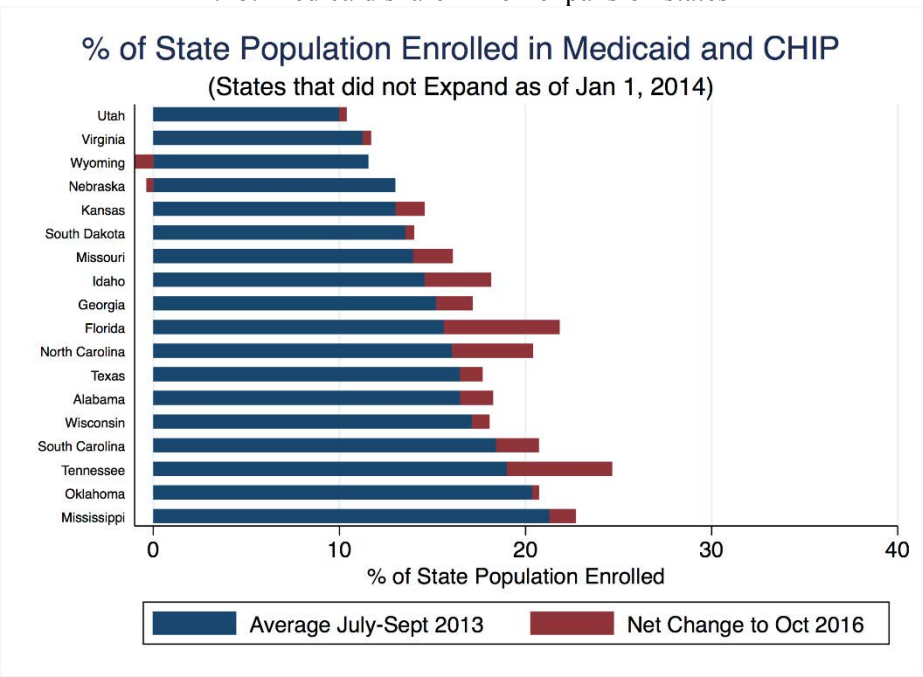


Figure A. 1: Medicaid share in expansion and non-expansion states

Note: This figure presents the Medicaid enrollment as a share of a state's population for states that expanded Medicaid under the ACA, as of January 1, 2014, (Panel A) and those that did not (Panel B). Medicaid share as of July-Sept 2013 (i.e. pre-ACA) is depicted in blue and the change through October 2016 is plotted in red. In both figures, states are sorted in ascending order by Medicaid's share of population as in 2013. Comparable baseline data was not available for Connecticut (expanded) and Maine (did not expand).

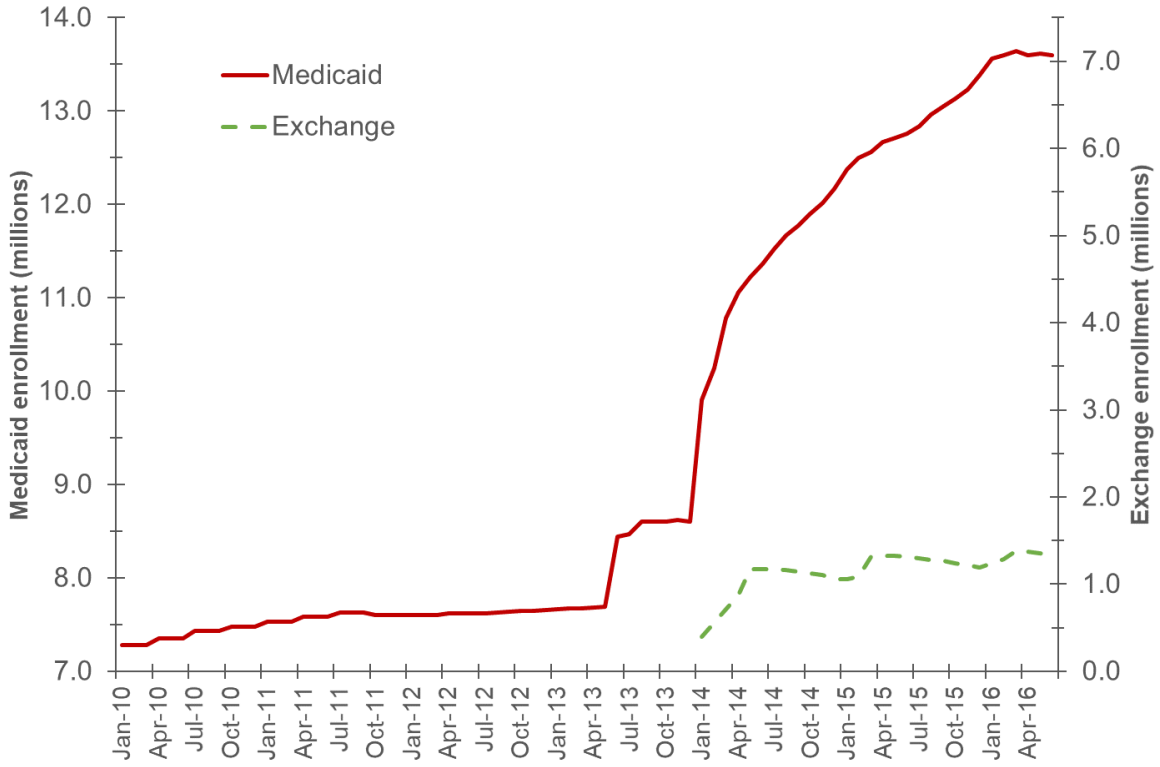


Figure A. 2: Medicaid and exchange enrollment in California

Note: This figure presents monthly enrollment in Medicaid and on the ACA exchange in California (right axis) over 2010-16. Enrollment data was obtained from CA Department of Health Care Services (Medicaid) and Covered California (Exchange) respectively.

State of California—Health and Human Services Agency | Department of Health Care Services

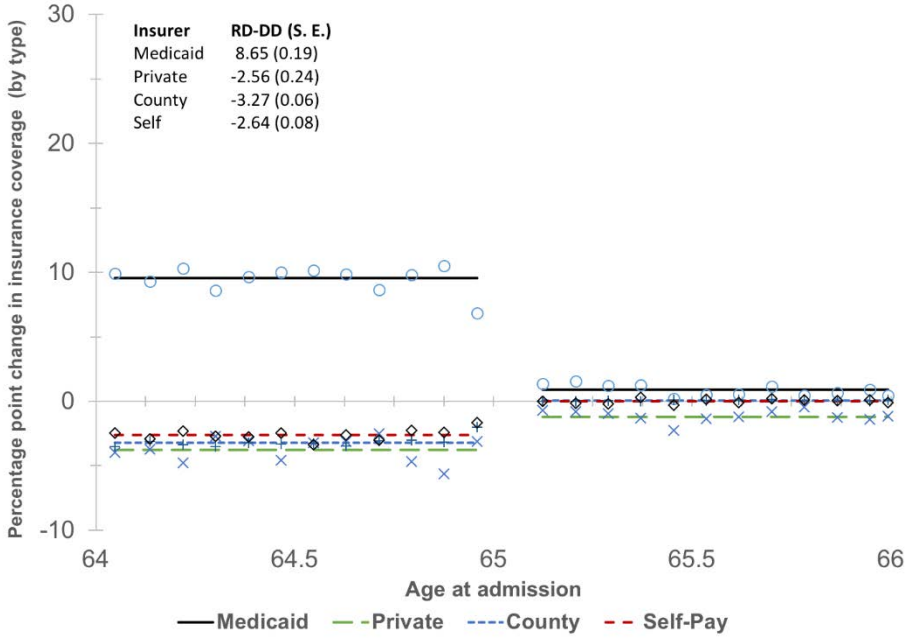
SUMMARY MEDI-CAL ELIGIBILITY*

	Public Assistance Recipient**	Medically Needy Beneficiary***	Medically Indigent Person or Family
Description of Eligible Person	SSI/SSP Aged Blind Disabled Deprivation CalWORKs California Work Opportunities and Responsibility to Kids	1. Linked to public assistance program but not eligible or does not want cash grant. 2. Aged, blind, or disabled. SSI/SSP–MN 1931(b)	Not linked to a public assistance program but who otherwise qualifies as (1) person under 21, (2) adults under 65 in either a skilled nursing facility or intermediate care facility, (3) women with a verified pregnancy, (4) nonlinked refugees/entrants in first 8 months of U.S. residency.
Age Limits	SSI/SSP Aged — 65 or older Blind — No age limit Disabled — No age limit CalWORKs Child under 18 and/or 19 if full-time student in high school or in a vocational program which can be completed before age 19 or an 18-year-old not expected to graduate before 19 due to disabilities. No age limit for parent.	SSI/SSP–MN Aged — 65 or older Blind — No age limit Disabled — No age limit 1931(b) — Same as CalWORKs	Under 21. Adult under 65 residing in either a skilled nursing facility or an intermediate care facility, pregnant woman with a verified pregnancy, and refugee entrants in the U.S. less than 18 months.
Residence and Citizenship	California Residence. Documentation is required for both citizens and aliens, in USA lawfully or under the color of law.	California Residence. Documentation is required for both citizens and aliens, in USA lawfully or under the color of law.	
Personal Property Limits (This does not include Business Property)	SSI/SSP Aged Blind — $2,000 — 1 person Disabled — $3,000 — couple CalWORKs The value of personal and real property including resources not excluded elsewhere by regulations, owned by a CalWORKs family shall not exceed $3,000 for an assistance unit with at least one member aged 60 or older or disabled, and $2,000 for all other assistance units.	Number of Persons Whose Property is Considered — Property Limit 1931(b) 1 person — $3,000 1 person — $2,000 2 persons — 3,000 3 persons — 3,150 4 persons — 3,300 5 persons — 3,450 6 persons — 3,600 7 persons — 3,750 8 persons — 3,900 9 persons — 4,050 10 persons — 4,200 Community spouse resource allowance when one spouse enters long-term care on or after 11/1/90 and applies in 2007 is: $101,640.	
Motor Vehicle Limits	SSI/SSP Aged, Blind, Disabled One car if used for transportation is exempt regardless of value. CalWORKs Exempt if total net market value is under $4,650 for applicant.	1 car exempt—no maximum value.	
Real Property Limits	SSI/SSP Aged, Blind, Disabled Home exempt. Other real property with net market value of $6,000 or less providing property is producing income consistent with its value. CalWORKs See comments under Personal Property Limit, above.	*Principal residence (PR),* including any appertaining buildings and land used as a home, is exempt if applicant/beneficiary lives there, temporarily absent, or if he/she is in long-term care (LTC) and his/her sibling or adult child lived there for at least one year prior to LTC entry and still lives there, if there is a bona fide effort to sell PR, or if there are legal obstacles to its sale. If beneficiary is in LTC and the former home is not otherwise exempt, it will remain exempt if it is listed for sale. It also will be exempt if the beneficiary has the intent to return and declares this in writing. *Other Nonbusiness Real Property* with a net market value of $6,000 or less is exempt if utilization requirements are met.	
Relative Responsibility	Spouse for spouse. Parent for child.	Spouse for spouse Parent for child under 21 living in the home except child with verified need for medical services which do not require parental authorization.	

Figure A. 3: California Medicaid eligibility requirements

Note: This figure presents an extract from an official notice on California Medicaid (Medi-Cal) eligibility requirements. This is available at http://www.dhcs.ca.gov/formsandpubs/forms/Forms/MCED/Info_Notice/MC002_ENG_0907.pdf and pertains to 2007. The top right portion discusses age thresholds for a person to be eligible for Medicaid under the "indigent" category, i.e. not disability or welfare recipient. Childless adults were usually ruled out unless they had special circumstances such as pregnancy (in the case of women) or were in a nursing home.

A.4*a*: Insurance change for the elderly



A.4b: Insurance change for the young

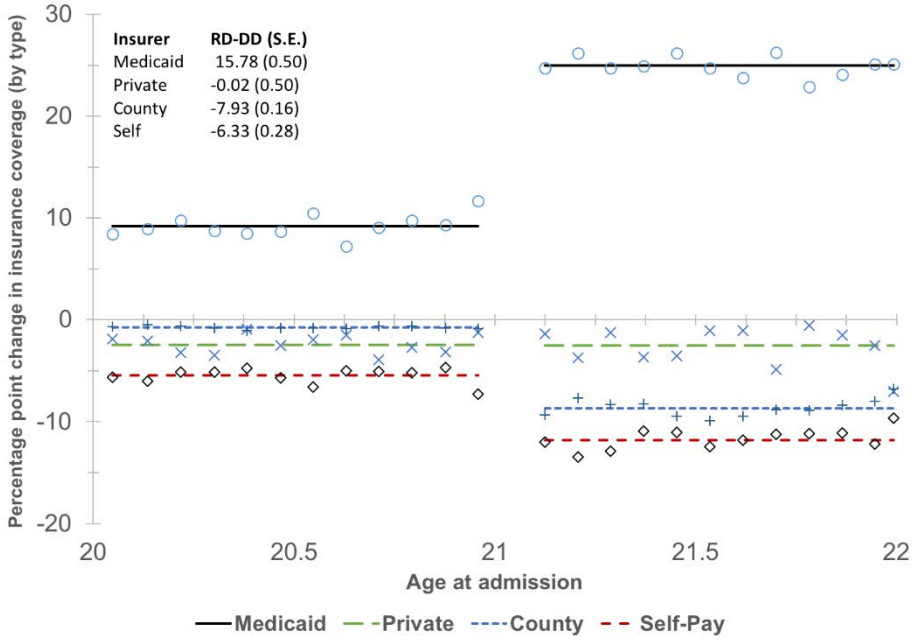


Figure A. 4: Insurance coverage changes (details)

Note: This figure presents observed coverage rates for different insurers, collapsed to age-month bin and corresponding fitted values (dashed line) obtained by estimating equation 3a on discharge level data as described in Section IV.A. It is a more detailed version of Figure 2. Self-pay includes charity care. The figure pertains to hospital stays in the RD sample for elderly (Panel A) and young (Panel B) patients respectively. All models control linearly for age and include year fixed effects. We also note the estimated change in discontinuity, which is the coefficient on $d_i.T_t$ in Equation 3a. Standard errors are clustered by day-of-age cells.

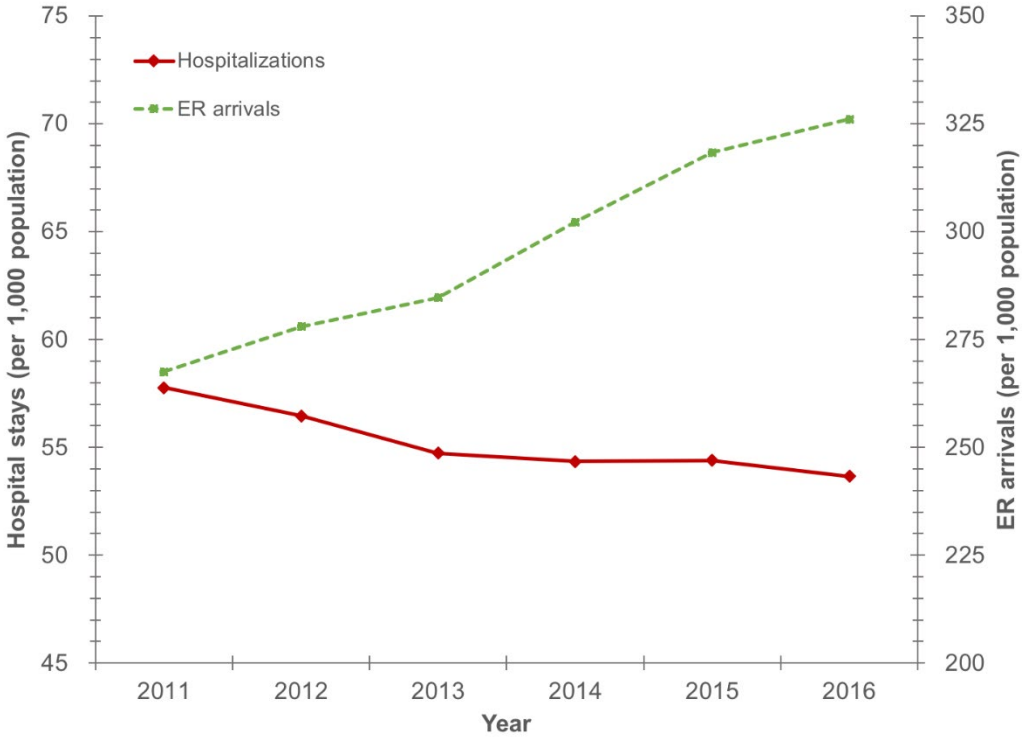
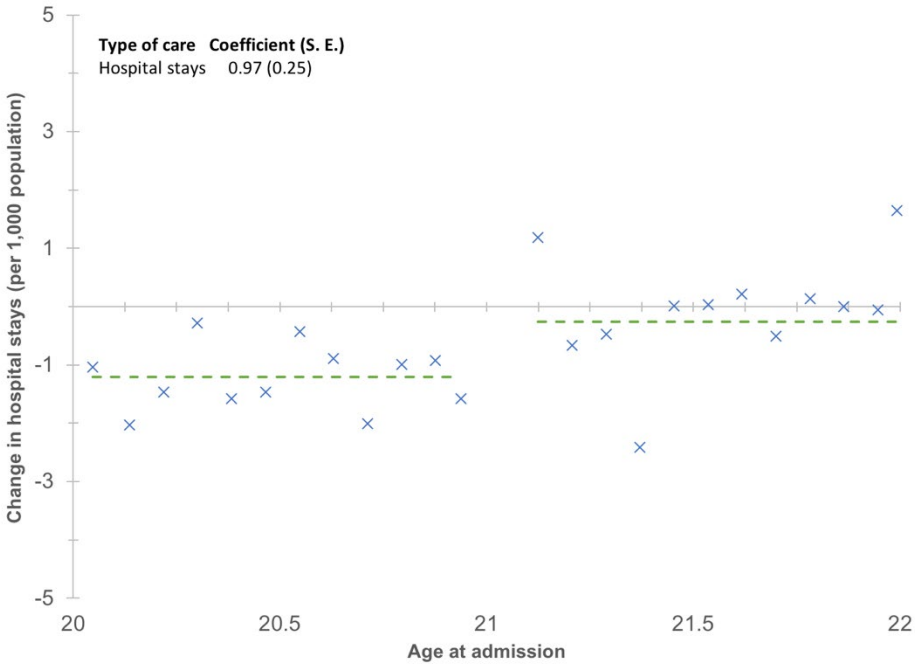


Figure A. 5: Hospital utilization by patients aged 21-64 (per 1,000 people)

Note: This figure presents the number of hospital stays (Panel A) and arrivals at Emergency rooms (Panel B) by patients aged 21-64 in California over 2011-16. The sample contains about 7.5 million discharges. ER arrivals include ER visits and those who were subsequently discharged as inpatients and the sample contains about 40.3 million observations. The raw discharges are normalized by population estimates from the National Cancer Institute for each age-year cell. These population estimates were also used in the RD-DD analysis for the same purpose. The figure makes use of the same sample restrictions as in our main analysis – limit to general acute care hospitals, exclude childbirth related cases, and exclude cases for individuals with zip codes missing or located outside California.

A.6a: Hospital stays



A.6b: Emergency room arrivals

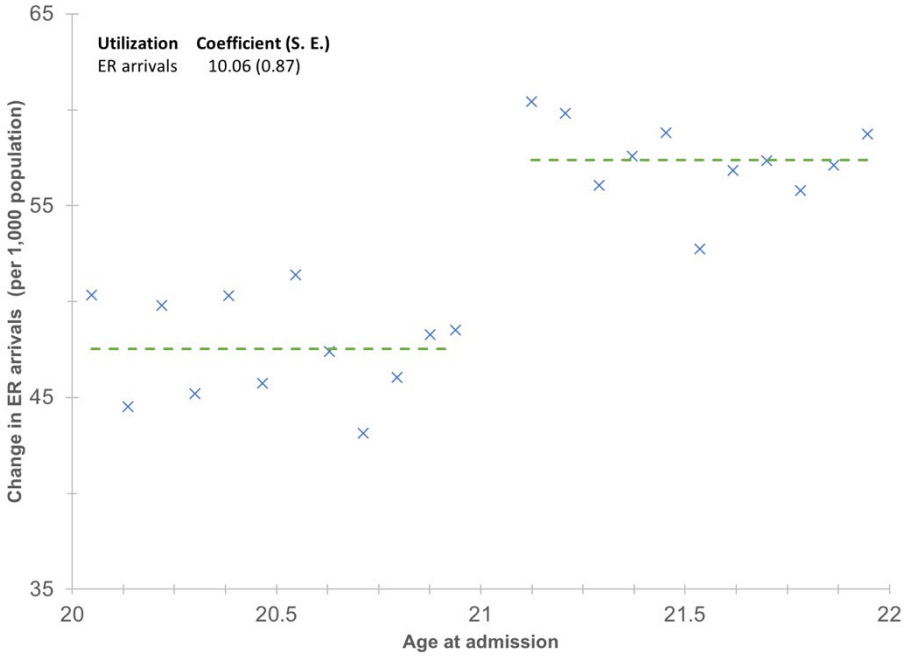
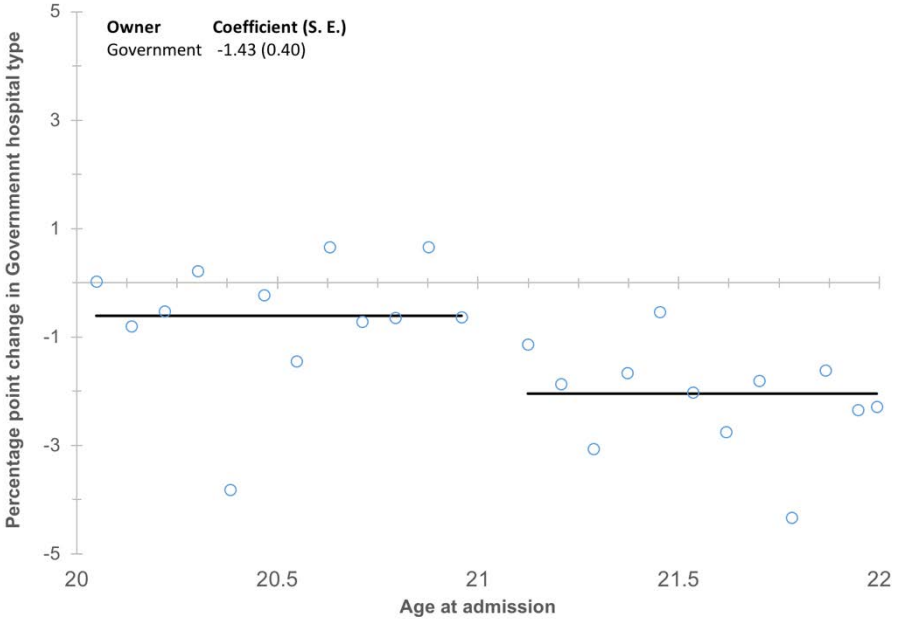


Figure A. 6: Rate of utilization for young patients

Note: This figure presents the mean post-ACA change in number of hospital stays (Panel A) and ER arrivals (Panel B), i.e. including those patients who were eventually admitted as inpatients, per 1,000 CA residents in each month-of-age cell. Raw discharges were converted to utilization rates using California population estimates, obtained from the National Cancer Institute. The regressions were estimated on data at day-of-age - year level, but for presentation clarity we collapse data to month-of-age level. Patients aged 21 constitute the treated group. We also plot corresponding fitted values (dashed lines) obtained by estimating Equation 4, as described in Section IV.C. All models control linearly for age and include a full set of year fixed effects. We also note the estimated change in discontinuity, which is the coefficient on $d_i.T_t$ in equation 4. Standard errors are clustered by day-of-age cell. Figure 3 presents corresponding results for elderly patients.

A.7a: Hospital owner type



A.7b: Hospital quality

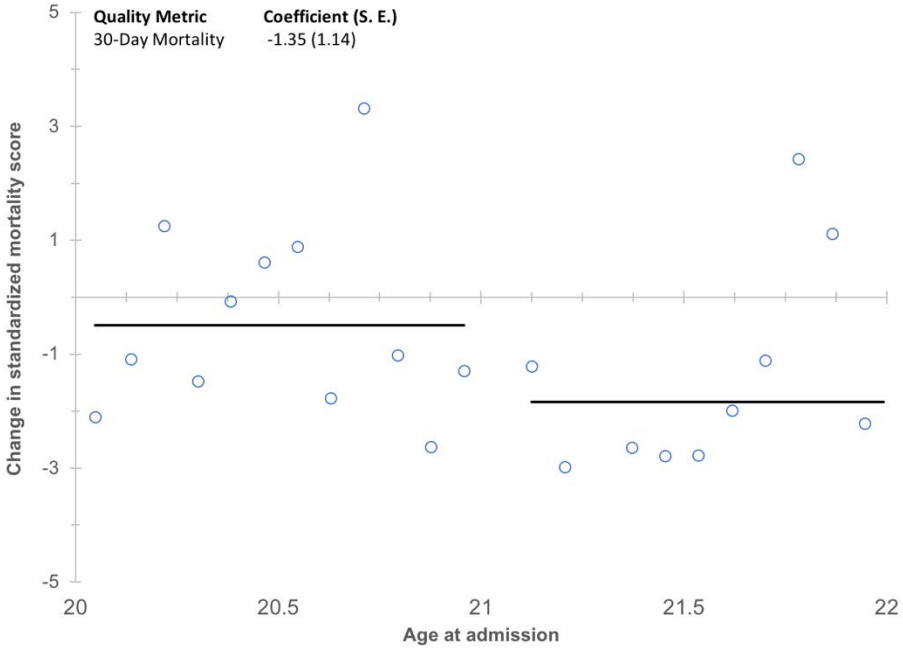


Figure A. 7: Hospital choice: Owner type and quality (Young patients)

Note: This figure presents post-ACA percentage point change in the percent of hospital stays at government hospitals (Panel A) and in mean standardized mortality score for patients, a variable with mean 0 and SD of 100 (Panel B). We also plot fitted values obtained by estimating equation 3b on case level data as described in Section IV.A. Patients aged 21 constitute the treated group. Regressions were estimated at the day-of-age - year level but for presentation clarity the data is collapsed to month-of-age level. Regressions control linearly for age and include year fixed effects. The estimated change in discontinuity, which is the coefficient on $d_i.T_t$ in equation 3b, is also presented. Standard errors are clustered by day-of-age cell. Figure 4 presents corresponding results for elderly patients.

Table A. 1: Population attributes at age thresholds (National Health Interview Survey)

	(1) Insured mean	(2) Uninsured mean	(3) Difference	(4) Mean value at threshold	(5) RD estimate at threshold
Panel A: Ages 20-21					
Married	0.08	0.13	0.044	0.07	-0.003
			(0.008)		(0.013)
Employed	0.61	0.66	0.047	0.60	0.004
			(0.012)		(0.023)
In school	0.23	0.07	-0.160	0.21	-0.028
			(0.010)		(0.019)
Percent days alcohol	0.12	0.11	-0.010	0.09	0.033
			(0.008)		(0.015)
Smoker	0.21	0.36	0.148	0.23	0.059
			(0.021)		(0.041)
Flu shot past 12 months	0.14	0.09	-0.056	0.13	0.015
			(0.014)		(0.026)
No insurance coverage	-	-	-	0.29	0.056
					(0.022)
Panel B: Ages 64-65					
Married	0.69	0.50	-0.1908	0.67	0.010
			(0.025)		(0.027)
Employed	0.37	0.35	-0.0205	0.34	-0.007
			(0.026)		(0.029)
In school	0.00	0.00	-0.0005	0.00	0.002
			(0.000)		(0.002)
Percent days alcohol	0.16	0.09	-0.0662	0.15	-0.015
			(0.020)		(0.025)
Smoker	0.17	0.30	0.1343	0.17	0.012
			(0.036)		(0.031)
Flu shot past 12 months	0.51	0.25	-0.2672	0.51	-0.066
			(0.032)		(0.042)
No insurance coverage	-	-	-	0.03	0.062
					(0.016)

Note: This table presents population weighted descriptive statistics and regression discontinuity estimates at ages 21 and 65 using data from the National Health Interview Survey (NHIS) person and sample adult files from 2004-2009. Data is limited to individuals within 12 months of their 21st and 65th birth month, excluding individuals interviewed in their month of birth. There are 11,321 and 6,883 such individuals in the person files. The outcomes percent days alcohol in past 12 months, smoking status and flu shot in past 12 months are taken from the sample adult files which have 4,375 and 3,587 individuals respectively. Standard errors (in brackets) are adjusted to account for sampling stratification as recommended by NHIS documentation. Mean value at threshold pertains to the mean value for individuals aged 20 and 65 respectively. RD estimate indicates difference in mean for individuals aged 21 and 64 (the treatment group) respectively. RD estimate obtained using OLS including linear polynomial in age and year fixed effects.

Table A. 2: Health outcomes (elderly)

	(1)	(2)	(3)	(4)
	Mortality		**Potentially Avoidable Hospitalization**	
	All stays	Non-deferrable	All stays	Non-deferrable
Panel A: Hospital Stays				
Age 64 * Post	-0.12	-0.29	-0.16	0.32
	(0.09)	(0.23)	(0.34)	(0.19)
Observations	557,124	100,541	241,715	67,777
2011-13 mean (age 64)	2.65	4.21	20.87	6.36
Panel B: ER Arrivals				
Age 64 * Post	-0.07	-0.13	0.06	-0.02
	(0.04)	(0.10)	(0.15)	(0.22)
Observations	1,336,962	218,699	629,439	141,030
2011-13 mean (age 64)	1.19	1.83	20.45	14.90

Note: This table presents estimated effects on two health outcomes – in-hospital mortality and share of stays/visits that were potentially avoidable – for elderly patients. Panels A and B present results for hospital stays and ER arrivals respectively. The dependent variables are indicators for in-hospital death (Columns 1 and 2) and potentially avoidable episode (Columns 3 and 4). Columns 1 and 3 use the entire sample, while columns 2 and 4 use only the sample of patients discharged with a non-deferrable condition. Estimated change in discontinuity post-ACA is the coefficient on $d_i \cdot T_t$ in equation 3b. All models control linearly for patient age, year fixed effects and observable differences in patient sickness, i.e. diagnosis category and gender. Standard errors are clustered by day-of-age cell. Table A. 6 presents corresponding results for young patients.

Table A. 3: Robustness checks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Insurance coverage					***Utilization***		***Hospital choice***		***Outcomes***	
	Medicaid	Private	Insured	County	Self-Pay	Stays	ER Arrivals	Govt.	RA Mort.	Mortality	Mort (ND)
Panel A: Main spec, BW=1											
Age 64 * Post	8.65	-2.56	5.91	-3.27	-2.64	7.78	11.51	-1.11	-2.40	-0.12	-0.29
	(0.19)	(0.24)	(0.09)	(0.06)	(0.08)	(0.71)	(1.12)	(0.18)	(0.56)	(0.09)	(0.23)
2011-13 mean (Age 64)	18.68	42.77	91.97	3.50	4.52	127	286	12.69	5.35	2.65	4.21
Observations			557,124				4,198	557,124	461,070	557,124	100,541
Panel B: Flexible spec, BW=1											
Age 64 * Post	7.91	-2.77	5.31	-2.90	-2.41	9.37	19.03	-0.65	-1.35	-0.26	-0.52
	(0.41)	(0.49)	(0.21)	(0.12)	(0.17)	(1.42)	(2.26)	(0.37)	(1.15)	(0.17)	(0.50)
Panel C: Main spec, BW=2											
Age 64 * Post	8.84	-2.31	6.08	-3.40	-2.68	9.27	15.08	-1.48	-1.62	-0.15	-0.12
	(0.13)	(0.16)	(0.07)	(0.04)	(0.05)	(0.50)	(0.82)	(0.12)	(0.41)	(0.06)	(0.16)
2011-13 mean (Age 63-64.9)	19.21	42.59	91.80	3.64	4.56	124	286	12.93	5.19	2.65	4.13
Observations			1,132,278				8,581	1,132,278	937,583	1,132,278	204,590
Panel D: Flexible spec, BW=2											
Age 64 * Post	8.21	-2.61	5.68	-3.12	-2.56	8.85	12.02	-0.96	-3.30	-0.08	-0.32
	(0.28)	(0.34)	(0.14)	(0.08)	(0.11)	(1.00)	(1.64)	(0.25)	(0.83)	(0.12)	(0.34)

Note: This table presents robustness checks of the main RD-DD results presented earlier. In the interest of brevity, we present results for key outcomes only. Columns 1-5 present results on changes in insurance coverage (Table 2), columns 6-7 present results on volume of care (Table 3), column 8 present results on hospital choice (Table 4), and columns 10-11 present results on patient mortality (Table A. 2). The main results (Panel A) use a 1-year bandwidth and the specification constrains slopes w.r.t. age to remain unchanged pre and post-ACA. Panel B presents results using a flexible specification keeping a 1-year bandwidth but allowing slopes w.r.t age to change post-ACA. Panels B and C use a sample with 2-year bandwidth, and linear I and linear-flexible (D) specifications respectively. Estimated change in the discontinuity post-ACA is the coefficient on $d_s \cdot T_t$ in equation 3b**.** All models also include a full set of year fixed effects. Columns 10-11 also include controls for observable differences in patient sickness, i.e. diagnosis category and gender. Standard errors are clustered by day-of-age cell. The number of observations and pre-ACA means for Panels A and B are noted at the end of Panel A, and those for Panels C and D are noted at the end of Panel C.

Table A. 4: Patient Volume (Young)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Hospital stays					**ER data**	
	All	Through ER	Not through ER	Deferrable	Non-Deferrable	All arrivals	ER visits
Age 21 * Post	0.95	0.43	0.52	0.82	0.12	9.86	9.43
	(0.25)	(0.21)	(0.14)	(0.25)	(0.08)	(0.88)	(0.86)
Dynamic Effect							
Age 21 * 2014	0.75	0.42	0.33	0.57	0.18	5.26	4.84
	(0.35)	(0.29)	(0.19)	(0.33)	(0.11)	(1.24)	(1.21)
Age 21 * 2015	1.36	0.80	0.55	1.17	0.19	12.69	11.88
	(0.36)	(0.29)	(0.20)	(0.34)	(0.11)	(1.27)	(1.25)
Age 21 * 2016	0.74	0.05	0.69	0.74	0.00	11.62	11.57
	(0.34)	(0.28)	(0.19)	(0.32)	(0.11)	(1.44)	(1.41)
2011-13 mean (age 21)	24	16	7	21	2	277	261
Observations	4,198						

Note: This table presents regression results on changes in volume of hospital care using the RD-DD analysis. Coefficients presented are on the interaction of indicator for being aged 21 and post-ACA period in equation 4. Regressions were estimated on the sample of young patients, as described in section IV.C. The dependent variable is rate of hospital stays or ER arrivals per 1,000 people per year. To generate these utilization rates, we normalize raw discharges by population estimates for each age-year cell obtained from the National Cancer Institute. Column 1 presents the results for all hospital stays. Columns 2 and 3 present results separately based on stays that originated through and not through ERs respectively. Columns 4 and 5 present results on stays for deferrable and non-deferrable conditions respectively. Non-deferrable refers to about 15 conditions such as Heart Attack, Pneumonia, Stroke, etc. that are emergent and require immediate hospital care. Column 6 presents results for all ER arrivals, while column 7 presents results only on ER visits i.e. where the patient was discharged from the ER. All models control linearly for age and include a full set of year fixed effects. Standard errors are clustered by day-of-age cell. Table 3 presents corresponding results for elderly patients.

Table A. 5: Hospital choice (Young)

	(1)	(2)	(3)	(4)	(5)
	Owner type			**Quality score**	
	Non-profit	For-profit	Govt.	Mortality	Readmission
Panel A: Hospital Stays					
Age 21 * Post	-0.21	1.66	-1.43	-1.35	1.71
	(0.48)	(0.38)	(0.40)	(1.14)	(1.07)
Dynamic Effect					
Age 21 * 2014	0.17	1.81	-1.98	-0.70	0.80
	(0.68)	(0.52)	(0.57)	(1.63)	(1.52)
Age 21 * 2015	0.72	1.34	-2.05	-1.28	0.79
	(0.67)	(0.52)	(0.55)	(1.59)	(1.57)
Age 21 * 2016	-1.58	1.85	-0.19	-2.11	3.65
	(0.70)	(0.55)	(0.57)	(1.63)	(1.56)
2011-13 mean (age 21)	65.95	14.33	19.72	9.40	7.83
Observations	150,030	150,030	150,030	125,996	126,587
Panel B: ER Arrivals					
Age 21 * Post	0.75	0.33	-1.08	-0.52	0.16
	(0.13)	(0.10)	(0.11)	(0.30)	(0.29)
Dynamic Effect					
Age 21 * 2014	0.87	0.38	-1.25	-0.36	-0.02
	(0.18)	(0.14)	(0.15)	(0.43)	(0.41)
Age 21 * 2015	0.95	0.03	-0.98	-0.20	0.10
	(0.17)	(0.14)	(0.14)	(0.42)	(0.40)
Age 21 * 2016	0.44	0.59	-1.02	-1.00	0.38
	(0.17)	(0.15)	(0.14)	(0.41)	(0.39)
2011-13 mean (age 21)	67.91	14.34	17.76	22.9029	5.683
Observations	1,967,635	1,967,635	1,967,635	1,662,680	1,672,327

Note: This table presents regression results on changes in hospital share using the RD-DD analysis. We explore changes on two dimensions – hospital owner type and quality scores. Coefficients presented are on the interaction of indicator for being aged 21 and post-ACA period in equation 3b. Regressions were estimated on the sample of young patients, as described in section IV.A. Panels A and B present results for the hospital stays and ER arrivals respectively. The sample for hospital owner type contains ~150,000 discharges while in case of quality scores the sample is smaller (~125,000) since some hospitals are not rated. The corresponding sample sizes in case of ER arrivals are 2 mn and 1.7 mn respectively. The dependent variables are indicators for government, non-profit or for-profit ownership (Columns 1-3) and standardized 30-day mortality and readmission scores reported by CMS in 2009 (Columns 4-5). All models control linearly for age and include a full set of year fixed effects. Standard errors are clustered by day-of-age cell. We also estimated a version of column 4 controlling for hospital ownership. Estimates were -0.54 (1.1) and -0.07 (0.3) for hospital stays and ER arrivals respectively. Table 4 presents corresponding estimates for elderly patients.

Table A. 6: Health outcomes (Young)

	(1)	(2)	(3)	(4)
	Mortality		**Potentially Avoidable Hospitalization**	
	All stays	Non-deferrable	All stays	Non-deferrable
Panel A: Hospital Stays				
Age 21 * Post	-0.01	0.36	0.51	-1.11
	(0.08)	(0.31)	(0.62)	(1.08)
Observations	150,030	14,965	51,618	6,638
2011-13 mean (age 21)	0.65	1.00	22.40	15.66
Panel B: ER Arrivals				
Age 21 * Post	-0.01	0.03	-0.09	-0.40
	(0.01)	(0.03)	(0.12)	(0.29)
Observations	1,967,635	207,946	785,999	116,310
2011-13 mean (age 21)	0.08	0.09	17.76	39.25

Note: This table presents estimated effects on two health outcomes – in-hospital mortality and share of stays/visits that were potentially avoidable – for young patients. Panels A and B present results for hospital stays and ER arrivals respectively. The dependent variables are indicators for in-hospital death (Columns 1 and 2) and potentially avoidable episode (Columns 3 and 4). Columns 1 and 3 use the entire sample, while columns 2 and 4 use only the sample of patients discharged with a non-deferrable condition. Estimated change in discontinuity post-ACA is the coefficient on $d_i \cdot T_t$ in equation 3b. All models control linearly for patient age, year fixed effects, and observable differences in patient sickness, i.e. diagnosis category and gender. Standard errors are clustered by day-of-age cell. Table A. 2 presents corresponding results for elderly patients.

U.S. Health Reform—Monitoring and Impact

What's Behind 2018 and 2019 Marketplace Insurer Participation and Pricing Decisions?

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With support from the Robert Wood Johnson Foundation (RWJF), the Urban Institute is undertaking a comprehensive monitoring and tracking project to examine the implementation and effects of health reform. The project began in May 2011 and will take place over several years. The Urban Institute will document changes to the implementation of national health reform to help states, researchers and policymakers learn from the process as it unfolds. Reports that have been prepared as part of this ongoing project can be found at **www.rwjf.org** and **www.healthpolicycenter.org**.

INTRODUCTION

In 2018, insurers exited from many Affordable Care Act (ACA) nongroup insurance marketplaces, and remaining insurers increased their premiums sharply in many areas. In 2019, most areas experienced modest increases, or even decreases, in premiums,[1] despite the pending elimination of the individual mandate penalties. And nationally, more insurers entered marketplaces than exited.[2] To better understand these developments, we conducted case study interviews with marketplace administrators and insurers selling marketplace coverage in ten states: California, Florida, Georgia, Indiana, Maryland, Minnesota, Ohio, Virginia, Washington, and West Virginia. These states vary considerably in the number of insurers participating in their marketplaces, as well as by changes in premiums in 2018 and 2019.

Our analysis focuses primarily on marketplace insurer participation and pricing decisions. However, we also explore several related topics: movement to narrow-network insurance products; the introduction of short-term, limited-duration plans; the impact of reinsurance programs in two of our study states; and the impact of "silver loading," the practice of increasing silver premiums to account for insurer costs of providing cost-sharing subsidies, on enrollment in bronze and gold plans.

The key findings were:

- Insurer participation declined in the 2018 plan year primarily because of policy changes made in 2017 as well as increased political uncertainty and the associated financial risks. Policy changes included the ending of direct funding of cost sharing subsidies, reduction in the length of the open enrollment period, and reduced funding for outreach and enrollment assistance. Efforts to repeal the ACA also were felt to discourage enrollment and thus insurer participation.
- For the 2019 plan year there has been some increase in insurer participation. More insurers came to believe that the risks they faced were manageable, and thus they became more willing to enter new markets.
- Marketplace premiums increased dramatically for the 2018 plan year. Much of this resulted from the administration refusing to directly fund cost-sharing reductions; thus, insurers had to account for these costs by increasing premiums. Uncertainty over the policies that would be in force during the year and the effect of the political debate on enrollment also increased insurers' perceived risks, which were reflected in higher premiums than would be the case without the ACA.
- Premium increases were considerably smaller for the 2019 plan year. In some cases, premiums fell due to insurers finding that 2018 premiums were more than adequate.
- There was a clear trend toward plans offering narrow provider networks. The HMO products offered by Blue Cross Blue Shield affiliates and Medicaid insurers came to dominate many markets. PPO products had a difficult time competing due to higher prices for broader networks. The exception was in rural areas where it is extremely difficult to establish narrow networks because of provider scarcity and consolidation.

- The expansion of non-ACA compliant short-term plans and health care sharing ministries affected some marketplaces in 2018. In general, most insurers were not convinced these types of options would be attractive to many individuals since they could not be purchased with ACA premium tax credits. However, the effect of short-term plans is anticipated to increase during the course of 2019 and beyond.
- Two of our study states instituted reinsurance programs. They saw significant reductions in premiums from these programs, but the need for state financing of part of the cost was thought to inhibit use in other states.
- One impact of the increase in silver premiums to fund cost sharing reductions was that bronze plans became very inexpensive relative to the size of many premium tax credits, and even gold plans could frequently be purchased with a small increase in out-of-pocket costs. Thus the number of people with bronze and gold plans increased in most of the study states.

INSURER PARTICIPATION IN MARKETPLACES, 2018 AND 2019

Insurer participation has varied significantly across geographic areas and years since the health insurance marketplaces created by the ACA began selling coverage for 2014. Insurer participation increased in the average state in 2015 and held roughly steady in 2016, but declined in 2017 and 2018.[3] Indications of insurer profitability now look positive.[4] Therefore, we asked insurers how they feel about their 2018 participation decisions at the end of the plan year and their outlooks for 2019.

Policy activity in 2017, when 2018 plan year participation decisions were made, caused significant market upheaval, making choices to expand participation very risky. Numerous administrative changes affected marketplace plans for the 2018 plan year, with the biggest effect likely resulting from halting direct reimbursements to insurers for cost-sharing subsidies. The administration also cut the length of the nongroup open enrollment period in half and substantially reduced federal funding for outreach and enrollment assistance. Simultaneously, efforts to repeal the ACA and institute substantially different policies mounted in Congress. At different times, the president declared the ACA "dead," confusing many consumers. At least partly because of this tumult, the number of insurers participating in marketplaces in 2018 fell or stayed constant in every state except Alabama and New Jersey, which each gained one insurer for the plan year. Some insurers selling coverage in the 2018 marketplaces expanded within the states in which they were already participating, but generally, expansions were minimal.

In addition to our interviews, in our study states, we assessed insurer entrances and exits in select large metropolitan areas (see the appendix for details). In Seattle, Washington, Richmond, Virginia, and the Washington, D.C., suburbs of Virginia, three insurers left the marketplace in 2018. In Indiana, two insurers, Anthem and MDwise, left the marketplace in 2018, following on numerous exits since the ACA marketplaces launched in 2014.[5] Florida and Georgia experienced a single exit by the same insurer, Humana. Ohio's marketplace lost Anthem but gained Oscar. California lost Anthem as well, and Oscar expanded in the state in 2018. Cigna left the Maryland marketplace, and no new insurer entered.[6]

Marketplace participation is now dominated by two insurer types: Medicaid-managed care organizations that entered the private insurance market for the first time under the ACA and affiliates of Blue Cross Blue Shield. In many cases, national insurers (e.g., Humana, Aetna, and UnitedHealthcare) and provider-sponsored insurers (an important exception being Kaiser Permanente) have left the marketplaces. Regional insurers are still in some rating regions but have left others.

The contraction of insurer participation in many instances is due to the inability to develop adequate provider networks at favorable payment rates. Interviewees from various insurers indicated that offering broad network products was no longer tenable in most instances. Sources believed that insurers that succeed in the marketplaces have established narrower provider networks with favorable provider payment rates. These narrower networks enable insurers to better control costs and keep premiums low. Several interviewees noted that broad network products tend to attract people with worse risk for which risk adjustment does not adequately account. Expansion into areas with low population density, which are often rural, presents significant challenges. Insurers noted that it can be very difficult to meet network adequacy requirements with reasonable payment rates in these areas.

Similarly, deciding whether to participate in a particular region often depended on whether the insurer had already established provider relationships, or if the firm felt that they

could establish favorable rates with the local providers. In areas with little to no competition between provider systems, negotiating desirable provider payment rates is harder, and therefore the decision to participate is more difficult. This factor is arguably the biggest limitation to insurer marketplace participation. One insurer, noting areas where they do not participate, said:

> *"The other counties tend to have monopolistic providers… It makes some counties more difficult than others."*

Following the tumultuous 2018 plan year, insurer participation increased in many markets in 2019. Eighteen states have more insurers offering coverage in their marketplaces than they had in 2018, and all other states held their number of insurers constant.[7] Among our states, Florida, Ohio, and Virginia each gained one insurer relative to 2018. These insurers were Oscar (Florida and Ohio), Anthem (entering with a small footprint in Ohio), and Virginia Premier (a Medicaid insurer in Virginia). Many of our interviewees also indicated their firms would be open to expansion if they could count on more stable regulations and policy. Respondents across states, particularly the Medicaid insurers, indicated they are actively evaluating expanding into more areas within states where they currently operate and, in some cases, into new states.

In addition to problems developing networks, increasing insurer participation will also be inhibited by concerns over the risk pool in some areas and political stability. For example, insurers considering entering the Maryland market report hesitation because of the high average claims reported by CareFirst. Maryland has attempted to address the ever-climbing marketplace premiums by implementing a reinsurance program. This program reimburses ACA-compliant nongroup market insurers for 80 percent of individual annual claims between $20,000 and $250,000. Ideally, this policy will make the state's marketplace more attractive to insurers by lowering their potential financial exposure and backstopping participating insurers in managing some of their higher claims. The policy has already led CareFirst, currently the only statewide marketplace participant, to substantially lower 2019 premiums. It is unclear whether the reinsurance program will be enough to attract new insurers.[8]

Table 1: Average Percentage Change in Lowest-Cost Marketplace Premium Across Insurers, Select Rating Regions in Study States in Silver and Gold Coverage Tiers

		2017-18		2018-19	
State	Rating Area	Silver	Gold	Silver	Gold
California	Northern Counties	31.7%	21.0%	6.1%	6.2%
	Sacramento	14.8%	2.7%	5.7%	8.4%
	East Los Angeles	28.4%	16.7%	4.2%	5.9%
	West Los Angeles	26.9%	16.2%	6.1%	7.8%
	San Diego	24.5%	10.6%	-0.1%	3.5%
Florida	Tampa	50.3%	18.1%	3.3%	6.0%
	Miami	50.3%	18.1%	-0.5%	6.0%
Georgia	Atlanta	50.1%	53.1%	2.2%	-7.0%
	Augusta	44.3%	66.5%	5.5%	-4.1%
Indiana	Indianapolis	28.2%	34.4%	5.0%	5.1%
Maryland	Baltimore	49.3%	18.1%	-9.9%	-12.3%
	Washington, D.C. Suburbs	49.3%	18.1%	-9.9%	-12.3%
Minnesota	Minneapolis	-8.2%	-8.1%	-14.9%	-17.7%
Ohio	Columbus	39.6%	28.5%	4.8%	5.5%
	Cleveland	24.3%	13.5%	6.6%	10.3%
Virginia	Richmond	52.0%	53.3%	13.6%	-15.9%
	Washington, D.C. Suburbs	60.0%	43.5%	20.7%	5.4%
Washington	Seattle	40.3%	31.2%	7.2%	6.3%
West Virginia	Charleston	15.3%	21.3%	9.6%	7.5%

Source: Urban Institute Analysis of data from healthcare.gov and relevant state based marketplace websites.

Almost every respondent, regardless of recent market experience, claimed federal policy changes have made the markets too unstable to expand into additional marketplace areas. Many noted that they would like to expand further if conditions settle down. One insurer noted:

"Given the continued uncertainty and volatility in the [state] individual market, we wanted to make sure we could be successful before building out a larger footprint."

MARKETPLACE PREMIUM CHANGES, 2018 AND 2019

Premiums, particularly for silver plans, increased dramatically in many premium areas in 2018, including in our study states (table 1). However, in 2019, the increases tended to be much more modest, and some premiums decreased significantly. Still, premiums varied considerably across the country. For example, in East Los Angeles, the average change in each insurer's lowest marketplace silver premium was 28.4 percent in 2018, compared with 4.2 percent in 2019. In the northern counties of California, the corresponding increases were 31.7 percent in 2018 and 6.1 percent in 2019. The 2018 increases in all the regions studied in California were substantially greater for silver coverage than for gold, perhaps because this was the first plan year for which the administration refused to directly reimburse insurers for cost-sharing reductions. Therefore, California, like most states, directed insurers to load costs associated with those subsidies into their calculation of silver plan premiums.[9]

In Baltimore and the Maryland suburbs outside Washington, D.C., the average increase for insurers' lowest silver marketplace premiums was 49.3 percent. The average increase for silver plans was much greater than for gold (49.3 percent versus 18.1 percent in both regions), again reflecting the state's silver-loading strategy. In 2019, however, the average premium of these lowest-priced options decreased by 9.9 percent after Maryland passed the state reinsurance program for ACA-compliant private nongroup insurance plans.

In Seattle, Washington, the average increase in insurers' lowest silver premiums was 40.3 percent in 2018, compared with 7.2 percent in 2019. Premium increases for silver plans exceeded those for gold. Both Cleveland and Columbus, Ohio, also had very large increases for their lowest-priced silver plans in 2018 and much smaller increases in 2019. Again, premiums increased for silver plans more than for gold plans the year silver loading began. The same was true for Miami and Tampa, Florida.

Indiana did not use silver loading for the 2018 plan year, but insurers were required to load the cost-sharing reduction costs into the premiums for their marketplace plans only. The average lowest-cost silver premiums increase was 28.2 percent, compared with 34.4 percent for gold in the Indianapolis market. Both gold and silver premium increases in that market for 2019 were only about 5 percent. Georgia did not mandate that plans silver load in 2018 either; they let insurers decide how to handle these costs. Marketplace insurers in the Atlanta and Augusta, Georgia areas increased their lowest-priced plan premiums more for gold than for silver plans in 2018. In 2019, the silver increases were small, and the lowest-cost gold plan premiums decreased on average.

WHY THE LARGE PREMIUM INCREASES IN 2018?

The large premium increases in 2018 largely resulted from the administration's decision to stop directly reimbursing cost-sharing reductions. Most states directed insurers to increase premiums for silver plans to ensure that insurers could pay for the cost-sharing reductions that they are legally obligated to provide low-income enrollees, regardless of federal reimbursement. As a result, premiums for silver plans increased more than insurers otherwise anticipated, around an additional 10 to 20 percent. Even increases in 2018 premiums for gold plans were larger than expected, seemingly reflecting insurers' concerns about the uncertainty over regulatory changes and policy debates, and an expectation that healthier people would increasingly leave the market, with less-healthy people more likely to choose gold plans as silver premiums increased.

In 2017, policy changes and the wide-ranging repeal and replace efforts created tremendous uncertainty for insurers setting premiums for 2018. The policy changes included

various regulatory moves that led insurers to increase premiums substantially in all metal tiers, especially in states that did not require silver loading and spread the costs associated with low-income cost-sharing subsidies across all coverage tiers. Whether the individual mandate would be repealed or not enforced also influenced premium setting for 2018. Other factors include reduced outreach and enrollment funding and the shortened open enrollment period. Together with the continued threats of other health insurance changes and the administration's willingness to change regulatory rules in the middle of a plan year, this uncertainty led to high 2018 premiums. Insurer responses include the following:

- *"2018 was the year of a great deal of uncertainty. Who knew if 'repeal and replace' would go through, that the individual mandate would go away midyear. The [cost-sharing reduction] funding wasn't decided until we had all submitted pricing. We generally went into 2018 with a lot of uncertainty. I'm not an actuary, but our actuary told us the best way to deal with uncertainty is to price for it. So, our general bias was to have higher rate increases for the uncertainty."*
- *"Everyone had large increases in 2018, primarily because of the [cost-sharing reductions]. It could have been because of political uncertainty as well. Let's face it, it was almost unbelievable how anyone could have priced anything. We didn't know if the law would be repealed; there were too many variables coming into play, including confused potential customers."*
- *"We feel like the cost-sharing reductions added about 20% to trend."*

Interviewees also mentioned insurers leaving the market as influencing 2018 premiums. Small insurers with low market shares leaving the market had a small effect. But if a major carrier offering a preferred provider organization (PPO) product that attracted a disproportionate share of high-risk enrollees left the market, those high-risk enrollees would shift to the remaining insurers, increasing uncertainty around insurers' pricing strategy. Interviewed insurers often mentioned that the difficulty of sustaining PPO products destabilized the markets. In markets with narrow-network plans and many insurers, premiums were lower. However, in these markets, PPOs struggled to achieve sufficient market share and remain, given their broader networks and higher provider payment rates. Their exits from markets created challenging transitions for those remaining, as expressed by interviewed insurers:

- *"When a large insurer offering a PPO product that was attracting bad risks left, that would have an impact. That would cause very large rate increases, say, in the order of 30 percent. If there was an exit of a large carrier offering a PPO product, that would leave the remaining carriers with more risk, and risk adjustment may not fully adjust for this."*
- *"We were faced in 2018 with being one of the only PPOs in the marketplace. We attract a different, riskier population than many of the [health maintenance organizations]. We also find that sicker individuals gravitate towards gold and platinum."*

In rural areas, almost all products were PPOs, reflecting that only open-network products were viable. There were not enough providers to develop narrow-network options in most cases, as noted by one interviewee:

> *"Payments are higher in rural areas. Rural areas aren't big enough and do not have enough population or enough providers. If you are a big hospital and you own provider groups, there is no way for the insurers to negotiate a competitive rate. In urban areas, it's possible that there are enough competing groups that you can stitch together networks, but not in the more rural parts of states."*

THE 2019 PREMIUM GROWTH SLOWDOWN

In 2019, premium increases were generally low, and in some cases, premiums fell relative to 2018. This readjustment occurred despite continuing political and policy uncertainty (including expansion of short-term, limited-duration plans, and elimination of individual mandate penalties) as well as further reduced federal outreach and enrollment funding for plan year 2019. The smaller increases in 2019 appear due to insurers over-adjusting for uncertainty and policy changes for the 2018 plan year; in many cases, they appear to have set premiums higher than was necessary. As a result, 2019 premiums were scaled back.

- *"I think the carriers probably overreacted. I think two things: I think carriers probably asked for too much in 2018 on both rounds. The first round based on cost trends, and there was so much concern about the uncertainty in the market that they were already a little high. And then when the [decision to halt reimbursement for] cost-sharing reductions came through, I think they probably asked for too much. The insurance commissioner in our state is usually a little tough with carriers, but I think he went soft with them because of all of the political uncertainty."*

- *"Rate increases are lower in 2019. Insurers are more stable and confident now. In 2019, the pricing is much more modest. I think that Insurer A only had a 4% increase, and I think that Insurer B and Insurer C were significantly lower than the prior year, something like 6 to 12 percent reductions. Insurer D had very high increases, but I think that in 2018 their premiums were probably too low. Unlike the other carriers that overdid it, they underdid it in 2018."*

- *"The low price increases in 2019 reflect the prices in 2018. The premiums had to be high because of all the federal policy unknowns. Some of the uncertainties that led us to price high didn't play out as we expected, but were mitigated. Thus, the lower the premium increases in 2019."*

Unlike in 2018, insurers setting premiums for 2019 knew that the individual mandate penalties would be eliminated that year. As demonstrated in the quotes below, interviewed insurers disagreed on the magnitude of the effect of eliminating the penalties in 2019. In part, this disagreement results from knowing that some consumers were confused in 2018, reacting as if the mandate had already been eliminated, and lack of agreement as to whether the mandate had been driving coverage since ACA implementation. Most insurers expected the 2019 individual mandate effect to be small, leading to risk pool changes that would increase premiums by less than 5 percent. However, one source suggested that repealing the mandate penalties could ultimately lead to premium increases as high as 13 percent.

- *"The insurance commissioner in Washington [State] did not allow insurers to use the individual mandate as a reason to increase premiums in 2019. I think [the insurers] were raising [2019] rates to offset the losses that they were experiencing, and then raising rates to compensate for the uncertainty."*

- *"Individual mandate penalties do not have a material effect on premiums. We were a little worried about people sitting out, but we don't consider it material. Certainly, there will be some rate increases as a result, but in the low single digits."*

The Trump administration's decision to loosen Obama-era regulations limiting short-term, limited-duration plans to three months or less also affected 2019 premiums. Allowing the sales of these non–ACA compliant policies for as long as 364 days threatens to pull healthier people out of ACA-compliant nongroup insurance pools, including marketplace and nonmarketplace coverage. At the time of our interviews, sources had unclear expectations about the likely impact of expanded short-term plans, and some expected their states' regulations to prevent disasters, as noted below.

- *"While we were concerned about short-term plans, this is probably a bit early to fully understand."*

- *"Short-term plans will take people out of the risk pool, increasing premiums—how much of an effect is unclear."*

Most felt that people eligible for premium tax credits were unlikely to choose these expanded short-term plans. Those who hazarded a guess estimated that premiums could increase by 3 percent to 5 percent.

As noted previously, sources in Maryland believed that the state's new reinsurance program was responsible for 2019's large premium reductions. Before the state received the federal waiver to implement the reinsurance program, marketplace insurers had requested extremely large premium increases for 2019.[10] CareFirst initially requested a 91 percent premium increase for their PPO product; after the reinsurance program was introduced, they revised the request to an 11 percent reduction. Two interviewees, explained the reinsurance program's impact.

- *"Reinsurance has a big effect on any carrier with a lot of high-cost cases. While reinsurance was generally expected to reduce premiums by 20 percent, it can have a much larger effect on PPO products."*

- *"We had a small decrease in 2018 rather than a large increase, and our biggest variable driving that was our reinsurance program."*

THE TREND TOWARD NARROWER NETWORKS

PPO products struggled in nearly every study state, and health maintenance organization (HMO) products dominated market shares. Sources in multiple states felt PPO products were more appealing to sicker people because of such products' increased provider choice, namely the flexibility to see doctors or use hospitals outside the plan's network and have at least some costs covered. Providing out-of-network coverage is often significantly more expensive for the insurer, because prices charged are not based upon previously negotiated rates. For the entire individual market, one insurer noted:

> *"The PPO was a difficult platform […] What we're seeing in the market, if you look at the landscape, is a shift toward the HMO platform: more tightly managed, more narrow networks, lower price points."*

One source noted that the struggle to maintain a PPO is even greater in states with limited verification for special enrollment periods. This person explained that people are "getting sick and then coming and buying a PPO, and then getting access to whatever doctor they want in the network without having to go through a [primary care physician] to get the care they need, and then leaving." This insurer felt that eliminating penalties for being uninsured would only increase this problem's frequency.

Several insurers perceived that the risk-adjustment system did not adequately compensate PPOs for the additional risk of their enrollees. Some insurers we spoke with believed that resultant financial losses caused insurers to pull PPO products from the marketplace in several states, thus increasing the average risk profile of other plans' enrollees.

Some of our sources saw HMO products enabling insurers to enter portions of marketplace rating regions, choosing the counties where they could effectively contract with the providers for the lowest rates. This strategy, in the presence of a PPO competitor, allowed the HMO to pull healthier people to their new, narrow, low-cost option. Some of our sources felt that this dynamic caused further harm to PPO plans, which are required to charge the same premium across a rating region. Losing healthier risks in certain subregions then necessitated that PPO plans raise premiums across an entire rating region, exacerbating the risk imbalance between PPO and HMO plans. Again, though all interviewees saw risk adjustment as critical, many felt it inadequately adjusted for existing risk differentials by plan type.

However, though interviewees saw PPOs as difficult to sustain, several conveyed the difficulty of creating and maintaining an HMO network in rural areas. Provider scarcity and consolidation makes it difficult to meet state network adequacy requirements while maintaining negotiating power to keep rates steady. Some sources did note that dominant insurers could still market products in rural areas because they have the leverage to threaten providers with leaving the region. Providers often preferred their patients to have an option for coverage, even if that meant accepting lower payment rates.

Insurers frequently saw the more successful marketplace competitors as those that originated as Medicaid plans or Blue Cross Blue Shield–affiliated HMO plans. Multiple sources believed that Blue Cross Blue Shield HMO products often derive from plans with broader networks and are created by large insurers that have more bargaining power, which has allowed them to create smaller HMO networks with the providers willing to keep payment rates lower than commercial levels. Medicaid insurers had already negotiated with provider networks for lower payment rates under their Medicaid contracts. Even if provider payment rates increased from Medicaid levels for their marketplace business, Medicaid insurers could still price their products below traditional commercial levels.

ADDITIONAL ISSUES

Non–ACA Compliant Plans

Sources were concerned about the ramifications of expanded availability of non–ACA compliant, short-term plans for the marketplaces; however, insurers generally expected that the plans would have low enrollment and, in many states, a small impact on premiums. Several insurers were not convinced that these plans would be attractive to many consumers. Multiple respondents said their firms were against the plans and did not want to sell them, but also said they would sell them if it became a competitive imperative. One respondent said the short-term plans in their state were beneficial, because the ACA-compliant plans were unaffordable for many people with incomes between 400 and 600 percent of FPL, who are ineligible for assistance. Similarly, health sharing ministries caused concern for insurers in some states, but they appeared unimportant in other states where they were less prevalent. Some states have banned short-term plans; others have regulated them so that their availability should not increase with new federal regulations; and others have little regulation, meaning expansion is still anticipated.[11] Examples of insurer perspectives on short-term policies include the following:

- *"We commented strongly on the short-term rules, and I think the big thing is we were hoping state law would not be preempted. We are pleased that that is the case. Minnesota law is complicated, but it essentially allows a short-term plan to be no more than 185 days over a 500-day period. The complex formula accounts for the fact that someone can be on a short-term plan more than once. We think that limits the exposure we have there."*
- *"Short-term policies are regulated, not banned. The rules do not permit renewable short-term limited duration plans, so they can only sell a three-month plan. They increased consumer notifications to make sure that people understand they can't be renewed."*
- *"We are very worried about health sharing ministries in Washington [State]. They have made some queries into*

this market, and the insurance commissioner is watching it closely."

- *"In California, there has been legislative action to prevent short-term policies, so that's not part of our marketplace. Our expectation is that 1 to 2 percent would find short-term policies attractive. There is more robust coverage on the ACA plans; 75 percent or more of our membership [is] subsidized, and that reduces the price for most consumers."*

- *"Short-term policies already have a big role in Virginia. That being said, there isn't that much regulation of them. My message is: let's put guardrails around them because we know that they are going to be offered. Some people want to put guardrails around them so they can't be offered. As you know, [the Centers for Medicare & Medicaid Services] would love to have plans step forward on all of our short-term plans as a potential solution to the folks that don't get the subsidies and are facing high premiums, so we may see some of our competitors step forward on that."*

Reinsurance

Reinsurance has already greatly impacted the Maryland and Minnesota ACA-compliant markets, as well as in other states implementing such programs that are not part of our study. Others contemplating reinsurance thought that reinsurance in their state would not be worthwhile, given states' required financial obligation. Respondents in Maryland and Minnesota felt reinsurance brought stability to the individual market, and that it would encourage insurers who exited the market to reenter. Sources in Minnesota were concerned about whether the state would continue to finance the program, which was initiated for the 2018 plan year (the program's guaranteed state funding was only set through 2019), but the premium tax that financed Maryland's new program appeared to provide a steady source of ongoing funding. Three interviewees highlighted the importance of federal support for state reinsurance programs:

- *"In Minnesota, we are very concerned about the future of the reinsurance program. We understand that our market can fluctuate quickly if we did not deal with issues pertaining to reinsurance. We understand that it may be viewed as a temporary solution, and we agree, but that is the position we are in until we receive clarity at the federal level."*

- *"In Maryland, we capitalized on the fact that the federal government was waiving the health insurance fee for 2019, so we imposed a broad-based 2.75 percent premium tax. With that, we were able to raise $365 million. Together with the federal government pass-through funding, we will end up just shy of $1 billion dollars in a five-year period…On the PPO product, when CareFirst filed rates [for 2019], they filed for a 90 percent increase. After reinsurance, they ended up with an 11.1 percent decrease. That amount of reinsurance money went towards all the products but tended to have the biggest effects on CareFirst PPO products."*

- *"I [a Washington State respondent] would love to have a federal reinsurance program. Right now we have some states that have been able to pass reinsurance locally, but that is a very expensive thing to do. Federal reinsurance would make a huge difference."*

Cost-Sharing Reductions, Silver Loading, and Shifts across Metal Tiers

As noted previously, without direct federal reimbursement for cost-sharing reductions in 2018, most state Departments of Insurance instructed insurers to load the associated costs into their silver plan premiums. In addition to covering insurer costs, this strategy increased each area's benchmark silver premium, thus increasing federal premium tax credits. This approach also increased unsubsidized silver premiums substantially. In comparison, bronze plans became much less expensive, and the additional cost of a gold plan over a silver plan tended to shrink. Thus, as noted in the interviewee quotes below, insurers reported a significant shift in enrollment from silver plans to bronze and gold options among those ineligible for cost-sharing reductions.

- *"Overall we [a California insurer] are seeing a lot more bronze. There's an increase in overall [advance premium tax credits] and because of that, if you are a subsidy-eligible member, you can get bronze plans in many regions for a dollar. By applying the [advance premium tax credit] to premiums, if you are shopping primarily on monthly premiums, bronze becomes really attractive."*

- *"In response to cost-sharing reductions, we had more people move to both bronze and to gold. Some of that was movement of nonsubsidized enrollees who didn't want to pay the premium on silver. They were thinking, with those prices, they might as well buy a gold plan, or 'I'd try to buy a bronze plan and get as much control on my premium as I possibly can.'"*

- *"The longer-term effect of the lack of funding of cost-sharing reduction has been a dramatic shift to bronze. I am not happy about that."*

DISCUSSION

We found that insurer participation in the marketplaces began to rebound in 2019, following decreases in participation in many areas in 2018. Some insurers expanded their geographic footprint in states in which they already participated, and others expanded to new states. Insurers were generally satisfied with the outcomes of their 2018 decisions.

Interviewees questioned the survival of PPO products, particularly in areas where they competed against closed-network plans. Many felt that they were disproportionately attractive to enrollees with greater health care needs, and the risk-adjustment system insufficiently compensated PPO products for those risks. However, HMOs struggle in rural areas, where meeting network adequacy standards is extremely challenging.

Also, following many dramatic marketplace premium increases in 2018, premium growth in 2019 tended to be modest, and even negative in some areas. The 2018 increases were largely attributable to insurers incorporating the costs associated with cost-sharing reductions into their premiums and to the tremendous uncertainty created by other regulatory changes and the political debate surrounding reform. Insurers appear to be readjusting premium growth in 2019 to account for 2018 overestimates.

Before seeing evidence from the 2019 open enrollment period, most insurers seemed to downplay the ramifications of ending the individual mandate penalties and expanding short-term, limited-duration plans for the coming year's risk pools. Yet, as of late December 2018, it seems likely that enrollment in the marketplaces in 2019 will be slightly lower than in 2018. Currently, it is impossible to assess how much of the enrollment change results from consumer decisions to drop insurance all together versus exits to noncompliant plans. The elimination of the mandate penalties makes both types of changes more likely. The implications for the average health care risk of marketplace enrollees may be greater than many insurers anticipate. If this is the case, financial losses for ACA-compliant insurers could increase in the coming year, with participation dropping and premiums increasing yet again for 2020. States using the reinsurance waiver–based strategy to help stabilize their markets may find these programs particularly helpful in stemming the effects of any falling enrollment in 2019.

APPENDIX

Table A-1. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, Selected Rating Regions in California, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
East Los Angeles										
Anthem	$287	N/A	N/A	N/A	N/A	$351	N/A	N/A	N/A	N/A
Blue Cross Blue Shield	$284	$325	$346	14.6%	6.3%	$344	$385	$406	11.7%	5.5%
Health Net	$269	$325	$337	20.8%	3.7%	$339	$364	$377	7.4%	3.5%
Kaiser Permanente	$320	$391	$404	22.1%	3.4%	$355	$376	$420	6.1%	11.5%
L.A. Care	$258	$316	$338	22.5%	6.8%	$304	$329	$352	8.1%	7.1%
Molina Healthcare	$251	$406	$391	62.1%	-3.7%	$281	$423	$422	50.4%	-0.2%
Oscar	N/A	$408	$443	N/A	8.5%	N/A	$450	$485	N/A	7.8%
Average percentage change across insurers				28.4%	4.2%				16.7%	5.9%
Percentage change in region's lowest premium option				26.2%	6.5%				17.0%	7.1%
West Los Angeles										
Molina Healthcare	$256	$390	$384	52.4%	-1.7%	$287	$406	$414	41.4%	1.8%
L.A. Care	$270	$339	$362	25.4%	6.8%	$319	$353	$378	10.7%	7.1%
Health Net	$289	$344	$389	19.0%	13.1%	$364	$386	$435	5.8%	12.9%
Anthem	$302	N/A	N/A	N/A	N/A	$370	N/A	N/A	N/A	N/A
Oscar	$332	$417	$452	25.5%	8.5%	$385	$460	$496	19.4%	7.8%
Kaiser Permanente	$335	$409	$423	22.1%	3.4%	$371	$394	$439	6.1%	11.5%
Blue Shield	$358	$418	$445	16.7%	6.3%	$434	$494	$521	13.7%	5.5%
Average percentage change across insurers				26.9%	6.1%				16.2%	7.8%
Percentage change in region's lowest premium option				32.4%	6.8%				22.8%	7.1%
San Diego										
Molina Healthcare	$297	$418	$391	41.1%	-6.4%	$332	$435	$422	30.9%	-3.1%
Health Net	$307	$392	$395	27.6%	0.8%	$387	$439	$442	13.5%	0.6%
Kaiser Permanente	$354	$432	$447	22.1%	3.4%	$392	$416	$464	6.1%	11.5%
Sharp	$356	$479	$457	34.8%	-4.7%	$419	$461	$476	10.1%	3.1%
Blue Cross Blue Shield	$406	$394	$419	-2.9%	6.3%	$504	$466	$492	-7.5%	5.5%
Anthem	$444	N/A	N/A	N/A	N/A	$543	N/A	N/A	N/A	N/A
Average percentage change across insurers				24.5%	-0.1%				10.6%	3.5%
Percentage change in region's lowest premium option				32.1%	-0.1%				25.1%	1.4%

Table A-1. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, Selected Rating Regions in California, 2017–2019 *continued*

Sacramento										
Kaiser Permanente	$402	$478	$494	19.1%	3.4%	$445	$460	$513	3.5%	11.5%
Western Health Advantage	$426	$557	$596	30.7%	7.0%	$512	$568	$607	11.0%	6.9%
Blue Cross Blue Shield	$479	$446	$474	-6.9%	6.3%	$595	$527	$556	-11.4%	5.5%
Health Net	$501	$584	$620	16.5%	6.1%	$625	$673	$738	7.7%	9.7%
Average percentage change across insurers				14.8%	5.7%				2.7%	8.4%
Percentage change in region's lowest premium option				11.0%	6.3%				3.5%	11.5%
Northern Counties										
Anthem	$408	$602	$623	47.5%	3.6%	$516	$726	$700	40.8%	-3.6%
Blue Cross Blue Shield	$450	$578	$644	28.4%	11.3%	$559	$664	$736	18.8%	10.8%
Kaiser Permanente	$402	$478	$494	19.1%	3.4%	$445	$460	$513	3.5%	11.5%
Health Net	$519	N/A	N/A	N/A	N/A	$647	N/A	N/A	N/A	N/A
Average percentage change across insurers				31.7%	6.1%				21.0%	6.2%
Percentage change in region's lowest premium option				19.1%	3.4%				3.5%	11.5%

Source: Cover California.

Note: Insurers instructed to load the cost of cost-sharing reductions into silver marketplace premiums only.

Table A-2. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Miami and Tampa, Florida, 2017-2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Miami										
Ambetter	$296	$435	$440	46.7%	1.2%	$407	$467	$476	14.9%	2.0%
Health Options	$318	$442	$458	39.0%	3.5%	$412	$456	$507	10.6%	11.3%
Molina Healthcare	$320	$567	$568	77.5%	0.1%	$372	$537	$630	44.2%	17.4%
Florida Blue (BCBS of Florida)	$422	$583	$543	37.9%	-6.9%	$623	$640	$597	2.7%	-6.6%
Humana[1]	$477	N/A	N/A	N/A	N/A	$559	N/A	N/A	N/A	N/A
Average percentage change across insurers				50.3%	-0.5%				18.1%	6.0%
Percentage change in region's lowest premium option				46.7%	1.2%				22.4%	4.5%

Table A-2. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Miami and Tampa, Florida, 2017-2019 *continued*

Tampa										
Ambetter	$305	$428	$467	40.3%	9.2%	$418	$460	$506	9.9%	10.1%
Health Options	$325	$481	$491	48.1%	2.1%	$421	$495	$544	17.8%	9.8%
Molina Healthcare	$339	$567	$585	67.3%	3.1%	$395	$537	$648	35.9%	20.8%
Blue Cross Blue Shield of Florida	$341	$496	$489	45.5%	-1.4%	$502	$544	$538	8.3%	-1.2%
Humana	$428	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average percentage change across insurers				50.3%	3.3%				18.0%	9.9%
Percentage change in region's lowest premium option				40.3%	9.2%				16.4%	10.1%

Source: Healthcare.gov Public Use File.

Note: Insurers instructed to load the cost of cost-sharing reductions into silver marketplace premiums only.

[1]Humana did not offer a gold plan during the 2017 plan year.

Table A-3. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Atlanta and Augusta, Georgia, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Atlanta										
Ambetter	$264	$417	$440	57.8%	5.4%	$362	$465	$497	28.3%	6.8%
Blue Cross Blue Shield of Georgia (Anthem)	$324	$581	$438	79.2%	-24.5%	$499	$1,030	$680	106.5%	-34.0%
Kaiser Permanente	$372	$421	$529	13.3%	25.5%	$444	$552	$585	24.3%	6.0%
Humana[1]	$538	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average percentage change across insurers				50.1%	2.2%				53.1%	-7.0%
Percentage change in region's lowest premium option				57.8%	5.4%				28.3%	6.8%
Augusta										
Blue Cross Blue Shield of Georgia (Anthem)	$322	$464	$490	44.3%	5.5%	$495	$824	$790	66.5%	-4.1%
Average percentage change across insurers				44.3%	5.5%				66.5%	-4.1%
Percentage change in region's lowest premium option				44.3%	5.5%				66.5%	-4.1%

Source: Healthcare.gov Public Use File.

Note: Insurers instructed to load the cost of cost-sharing reductions into all silver plans, both on marketplace and off.

[1]Humana did not offer a gold plan during the 2017 plan year.

Table A-4. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Indianapolis, Indiana, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Indianapolis										
Ambetter	$284	$364	$372	28.2%	2.0%	$391	$514	$498	31.2%	-3.0%
CareSource	$286	$366	$396	28.1%	7.9%	$364	$501	$567	37.6%	13.2%
Anthem	$414	N/A	N/A	N/A	N/A	$647	N/A	N/A	N/A	N/A
MDwise	$317	N/A	N/A	N/A	N/A	$424	N/A	N/A	N/A	N/A
Average percentage change across insurers				28.2%	5.0%				34.4%	5.1%
Percentage change in region's lowest premium option				28.2%	2.0%				37.6%	-0.6%

Source: Healthcare.gov Public Use Files.

Note: Insurers instructed to load the cost of cost-sharing reductions into all marketplace metal tiers.

Table A-5. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Baltimore and the Washington D.C., Suburbs, Maryland, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Baltimore										
Kaiser Permanente	$309	$436	$404	41.1%	-7.4%	$401	$450	$408	12.1%	-9.3%
CareFirst	$355	$559	$489	57.5%	-12.5%	$416	$516	$437	24.0%	-15.3%
Cigna	$415	N/A	N/A	N/A	N/A	$548	N/A	N/A	N/A	N/A
Average percentage change across insurers				49.3%	-9.9%				18.1%	-12.3%
Percentage change in region's lowest premium option				41.1%	-7.4%				12.1%	-9.3%
Washington, D.C., Suburbs										
Kaiser Permanente	$309	$436	$404	41.1%	-7.4%	$401	$450	$408	12.1%	-9.2%
CareFirst	$355	$559	$489	57.5%	-12.5%	$416	$516	$437	24.0%	-15.3%
Cigna	$409	N/A	N/A	N/A	N/A	$540	N/A	N/A	N/A	N/A
Average percentage change across insurers				49.3%	-9.9%				18.1%	-12.3%
Percentage change in region's lowest premium option				41.1%	-7.4%				12.1%	-9.2%

Source: Maryland Health Connection.

Table A-6. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Minneapolis, Minnesota, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Minneapolis										
HealthPartners	$363	$327	$304	-9.9%	-7.1%	$463	$410	$367	-11.4%	-10.4%
UCare	$366	$315	$282	-13.8%	-10.4%	$490	$413	$363	-15.7%	-12.1%
Medica	$395	$352	$300	-10.9%	-14.7%	N/A[1]	$418	$343	N/A	-17.9%
Blue Plus	$419	$425	$309	1.7%	-27.5%	$489	$502	$349	2.7%	-30.6%
Average percentage change across insurers				-8.2%	-14.9%				-8.1%	-17.7%
Percentage change in region's lowest premium option				-13.2%	-10.4%				-11.4%	-16.3%

Sources: 2017 data taken from RWJF HIX compare dataset. 2018 and 2019 data were gathered from MNsure.

Note: [1]Data missing

Table A-7. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Columbus and Cleveland, Ohio, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Columbus										
CareSource	$284	$385	$474	35.4%	23.3%	$367	$464	$564	26.6%	21.5%
Molina Healthcare	$301	$461	$444	53.5%	-3.7%	$383	$501	$500	30.8%	-0.2%
Medical Mutual	$326	$423	$437	29.9%	3.4%	$402	$515	$550	28.0%	6.8%
Anthem Blue Cross and Blue Shield	$342	N/A	N/A	N/A	N/A	$467	N/A	N/A	N/A	N/A
Ambetter from Buckeye Health Plan	N/A	$417	$401	N/A	-3.7%	N/A	$531	$498	N/A	-6.3%
Oscar	N/A	N/A	$382	N/A	N/A	N/A	N/A	$510	N/A	N/A
Average percentage change across insurers				39.6%	4.8%				28.5%	5.5%
Percentage change in region's lowest premium option				35.4%	-0.8%				26.6%	7.3%

Table A-7. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Columbus and Cleveland, Ohio, 2017–2019 *continued*

Cleveland										
Ambetter from Buckeye Health Plan	$224	$307	$323	36.8%	5.1%	$312	$391	$400	25.3%	2.3%
Molina Healthcare	$252	$346	$366	37.2%	5.7%	$321	$376	$411	16.9%	9.5%
CareSource	$253	$319	$371	26.2%	16.1%	$326	$385	$440	18.0%	14.4%
Anthem Blue Cross and Blue Shield	$363	N/A	N/A	N/A	N/A	$496	N/A	N/A	N/A	N/A
Medical Mutual	$376	$364	$360	-3.1%	-1.2%	$470	$440	$454	-6.3%	3.2%
Oscar	N/A	$434	$466	N/A	7.4%	N/A	$509	$623	N/A	22.3%
Average percentage change across insurers				24.3%	6.6%				13.5%	10.3%
Percentage change in region's lowest premium option				36.8%	5.1%				20.3%	6.5%

Source: Healthcare.gov Public Use File.

Note: Insurers instructed to load the cost of cost-sharing reductions into silver marketplace premiums only.

Table A-8. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Richmond and the Washington D.C., Suburbs, Virginia, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Richmond										
Aetna	$289	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cigna	$296	$439	$490	48.0%	11.7%	$403	$719	$502	78.2%	-30.2%
Anthem HealthKeepers	$303	$497	$531	64.2%	6.7%	$435	$740	$531	70.1%	-28.3%
Kaiser Permanente	$329	$447	$638	36.0%	42.7%	$457	$483	$611	5.7%	26.5%
UnitedHealthcare[1]	$333	N/A	N/A	N/A	N/A	$482	N/A	N/A	N/A	N/A
Piedmont Community Health Plan	$357	$572	$674	60.0%	17.9%	$437	$696	$639	59.3%	-8.2%
Optima Health	N/A	$900	$801	N/A	-11.0%	N/A	$1,343	$812	N/A	-39.5%
Virginia Premier Health	N/A	N/A	$504	N/A	N/A	N/A	N/A	$499	N/A	N/A
Average percentage change across insurers				52.0%	13.6%				53.3%	-15.9%
Percentage change in region's lowest premium option				51.6%	11.7%				19.8%	3.3%

Table A-8. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Richmond and the Washington D.C., Suburbs, Virginia, 2017–2019 *continued*

Washington, D.C., Suburbs										
Innovation Health	$296	N/A	N/A	N/A	N/A	$396	N/A	N/A	N/A	N/A
Cigna	$313	$458	$508	46.1%	11.0%	$426	$750	$520	75.8%	-30.6%
UnitedHealthcare	$319	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kaiser Permanente	$329	$447	$638	36.0%	42.7%	$457	$483	$611	5.7%	26.5%
Anthem HealthKeepers	$336	$511	$552	52.3%	8.0%	$482	$770	$552	59.7%	-28.3%
CareFirst BlueChoice, Inc.	$432	$720	$802	66.7%	11.3%	$498	$653	$751	31.1%	14.9%
Group Hospitalization and Medical Services, Inc. (CareFirst)	$466	$928	$1,210	98.9%	30.5%	$556	$807	$1,167	45.1%	44.7%
Average percentage change across insurers				60.0%	20.7%				43.5%	5.4%
Percentage change in region's lowest premium option				51.4%	13.5%				21.9%	7.68%

Source: Healthcare.gov Public Use File.

Notes: Insurers instructed to load the cost of cost-sharing reductions into silver marketplace premiums only.

[1]United did not offer a gold plan during the 2017 plan year.

Table A-9. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Seattle, Washington, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Seattle										
Coordinated Care	$235	$328	$368	39.6%	12.3%	$317	$419	436	32.3%	4.1%
Molina HealthCare	$257	$385	$412	49.7%	6.9%	$320	$476	511	48.9%	7.3%
Group Health (Kaiser Permanente)	$280	$404	$439	44.2%	8.7%	$344	$414	474	20.2%	14.7%
BridgeSpan Health Company	$315	N/A	N/A	N/A	N/A	$409	N/A	N/A	N/A	N/A
LifeWise	$324	N/A	N/A	N/A	N/A	$417	N/A	N/A	N/A	N/A
Regence	$326	N/A	N/A	N/A	N/A	$433	N/A	N/A	N/A	N/A
Premera Blue Cross	$404	$517	$520	27.9%	0.7%	$501	$617	612	23.4%	-0.9%
Average percentage change across insurers				40.3%	7.2%				31.2%	6.3%
Percentage change in region's lowest premium option				39.6%	12.3%				30.7%	5.4%

Source: Washington Healthplan Finder.

Note: Insurers instructed to load the cost of cost-sharing reductions into silver marketplace premiums only.

Table A-10. Lowest Silver and Gold Monthly Marketplace Premiums for a 40-Year-Old, by Insurer, in Charleston, West Virginia, 2017–2019

Insurer	Lowest Silver Premium					Lowest Gold Premium				
	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19	2017	2018	2019	Percent Change 2017–18	Percent Change 2018–19
Charleston										
CareSource	$505	$555	$611	9.8%	10.2%	$638	$747	$817	17.0%	9.5%
Highmark Blue Cross Blue Shield West Virginia	$541	$653	$713	20.7%	9.1%	$664	$834	$880	25.6%	5.5%
Average percentage change across insurers				15.3%	9.6%				21.3%	7.5%
Percentage change in region's lowest premium option				9.8%	10.2%				17.0%	9.5%

Source: Healthcare.gov Public Use File.

Note: Insurers instructed to load the cost of cost-sharing reductions into all metal tiers, both on marketplace and off.

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Reinsurance, Repayments, and Risk Adjustment in Individual Health Insurance: Germany, The Netherlands and the U.S. Marketplaces
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ABSTRACT

Reinsurance can complement risk adjustment of health plan payments to improve fit of payments to plan spending at the individual and group level. This paper proposes three improvements in health plan payment systems using reinsurance. First, we base reinsurance payments on spending not accounted for by the risk adjustment system, rather than just high spending. Second, we propose pairing reinsurance for individual-level losses with repayments for individual-level profits. Third, we optimize the weights on the risk adjustors taking account of the presence of reinsurance/repayment. We implement our methodology in data from Germany, The Netherlands and the U.S. Marketplaces, comparing our modified approach to plan payment with risk adjustment as currently practiced in the three settings. The combination of the three improvements yields very substantial improvements in the individual-level fit of payments to plan spending in all three countries.

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1. Introduction

Reinsurance -- extra payments a health plan receives once spending for an individual exceeds a pre-defined threshold[1] -- can complement risk adjustment of health plan payments to improve fit of payments to plan spending at the individual and group level. Reinsurance can reduce selection incentives not corrected by risk adjustment and mitigate a plan's business risk. Where used, however, reinsurance payments typically make up a small share of total plan payments.[2] The reason is two-fold. First, like other forms of risk sharing, reinsurance dilutes incentives for cost control. Second, reinsurance payments must be financed, either by reducing the funds available for risk adjustment or by external sources. Nonetheless, even when reinsurance is only a very small share of total payments, because it targets the highest-cost cases, a little reinsurance goes a long way to reducing the variation in health care costs not accounted for by risk adjustment (Swartz, 2006).

This paper proposes three improvements in health plan payment systems using reinsurance. First, we base reinsurance payments on spending *not accounted for by the risk adjustment system*, which we refer to as *residual spending*, rather than just *high spending*. Targeting reinsurance to residuals rather than spending is more effective at reducing variation in individual-level profits and losses.

Second, we *pair reinsurance with repayments*. It is well-known that risk adjustment payment models underpay for individuals with extremely high spending by amounts that can rise to millions of dollars or Euros. But there is another side to the mismatch of payments to spending. Sophisticated disease-based risk adjustment algorithms (as are in place in the three countries studied here) generate plan payments for individuals with (multiple) disease indicators that can run into the hundreds of thousands of dollars or Euros. And sometimes, recording of disease indicators in health claims notwithstanding, plans spend little to treat the individuals *predicted* to be expensive. For some individuals, plan spending is much less than plan revenue.[3] A repayment policy that limits plan gains along with a reinsurance policy that limits plan losses further improves fit of the payment

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[1] This has also been referred to as 'excess loss compensation' (Van de Ven et al., 2000).

[2] An exception is reinsurance in the free-standing prescription drug plans in Medicare Part D where reinsurance payments make up more than half of total plan payments. The original design of the Part D reinsurance program was not intended to constitute such a large share of payments, and various reforms have been proposed to reduce the share of reinsurance payments. Medicare Payment Advisory Commission (March, 2014).

[3] Risk adjustor variables are imperfect signals of an individual's health status. For example, use of home care in the prior year (one of the risk adjustor variables used in the Netherlands) identifies people with very different risk types, e.g. young people recovering from an incidental hospital treatment and elderly people with progressive end-of-life health problems. A compensation based on the average predicted spending for these risk types likely generates substantial overpayments for the first group.

system. Furthermore, pairing repayments with reinsurance has the attractive feature that pay-ins from plans on highly profitable enrollees help finance the pay-outs to plans for the enrollees with very large losses.

Third, we *optimize the weights on the risk adjustors taking account of the presence of reinsurance/repayment*. Risk adjusted payments to plans are intended to cover spending which is the responsibility of the health plan. Risk adjusted payments need not cover spending that will be taken care of by reinsurance. We show that a simple iteration optimizes the regression weights predicting plan spending net of reinsurance/repayment and optimizes the upside and downside thresholds where reinsurance and repayment, respectively, should kick in. The benefits of this integrated approach to estimation can be illustrated with a simple example. Imagine a risk adjustment model that includes a morbidity indicator x which identifies a group of people with high spending on average but with considerable variation around the average. A payment weight for this indicator based on the average incremental spending in the group will underpay some people and overpay others. Our integrated estimation procedure accounts for the presence of reinsurance which directly improves fit for the group members with spending much above the group average. The consequent reduction in the estimated payment weight indirectly improves fit for those with lower than average costs. A similar argument could be made for the beneficial effects of the repayment component.

We implement our methodology in data from Germany, The Netherlands and the U.S. Marketplaces, comparing our modified approach to plan payment with risk adjustment as currently practiced in the three settings. The combination of 1) targeting reinsurance/repayment to residual spending rather than absolute spending, 2) supplementing reinsurance with repayments for highly overpaid enrollees, and 3) optimizing regression weights in the presence of reinsurance/repayment yields very substantial improvements in the individual-level fit of payments to plan spending in all three countries. Conducting empirical risk adjustment research in parallel in three countries is a novel contribution. Similar results in the three distinct individual health insurance markets supports the generality of our findings about the impacts of health plan payment alternatives considered.

Previous research in the three countries and elsewhere has investigated the properties of supplementing risk adjustment with reinsurance or other forms of risk sharing. Studies in the US, including a number focusing on the Marketplaces,[4] have found that conventional reinsurance,

[4] The following papers all use payment systems modelled on the Marketplaces. Geruso and McGuire (2016) use MarketScan data from 2008-09, and Zhu et al., (2013) and Layton, McGuire and Sinaiko (2016) use data from the Medical Expenditure Panel Survey (MEPS) with characteristics matching likely Marketplace

defined on spending rather than residuals, improves fit at the person level as well as at the level of groups defined by use of certain services. Consistent findings emerge in research in Israel (Brammli-Greenberg, Glazer and Waitzburg, 2018) the Netherlands (Van Barneveld et al., 1998, 2001), and Switzerland (Schmid and Beck, 2016). As far as we know, Schillo et al. (2016), in a paper on Germany, are the first to propose and check a reinsurance system based on residual spending – also highly effective at improving fit of the payment model.[5]

A limitation on gains at the individual level (as is done with a repayment feature) has been paired with a limitation on losses (the reinsurance function) in U.S. Medicare payment models for hospital and home health care. Medicare pays hospitals prospectively on the basis of Diagnosis-Related-Groups (DRGs), but if the cost of a stay exceeds a fixed loss threshold, Medicare covers 80% of the cost above the threshold. On the other side of the realized cost distribution, if a patient is transferred and their length of stay at the transferring hospital is lower than the DRG-specific geometric mean, Medicare pays a per diem rate – in effect, requiring a repayment from the DRG-based payment.[6] For long-term care (LTC) hospitals, 'short-stay outliers' receive less than full payment.[7] A short-stay outlier is a stay length that is less than or equal to 5/6th of the LTC-DRG specific geometric mean length of stay. For these cases, Medicare pays roughly the LTC-DRG per

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participants. Using an updated version of the data used for calibration of the ACA risk adjustment models -- the same data are used in this paper -- Layton, Ellis, McGuire and Van Kleef (2017) show that reinsurance paired with prospective risk adjustment produces an individual-level fit of payments to costs much higher than concurrent risk adjustment with no reinsurance.

[5] In a related approach some research groups have studied including a variable representing "high cost" as a risk adjustor directly. Schillo et al. (2016) study including an indicator for high-cost groups, Layton and McGuire (2017) propose including costs above the reinsurance attachment point as a risk adjustor, and Van Kleef and Van Vliet (2012) include an indicator of persistent high cost in multiple previous years as an adjustor, an approach subsequently incorporated in the Dutch risk adjustment model.

[6] Centers for Medicare and Medicaid Services (CMS). "Medicare Claims Processing Manual. Chapter 3-Inpatient Hospital Billing. (2018) Section 20.1.2.4 https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/clm104c03.pdf. The Medicare Learning Network (MLN). Acute Care Hospital Inpatient Prospective Payment System. March 2018 https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/acutepaymtsysfctsht.pdf

[7] Centers for Medicare and Medicaid Services (CMS). "Medicare Claims Processing Manual. Chapter 3-Inpatient Hospital Billing. (2018) Section 150.9.1.1 https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/clm104c03.pdf. Long-term care hospitals specialize in providing care to patients with complex needs (often transferring from an intensive care unit) who usually stay more than 25 days. https://www.medicare.gov/Pubs/pdf/11347-Long-Term-Care-Hospitals.pdf

diem amount.[8] Finally, in the home health setting also, reinsurance supplements payments for cases for which spending during the 60-day episode greatly exceeded the 60-day case-mix adjusted payment. On the other hand, beneficiaries whose episode consisted of four or fewer visits are paid a standardized amount per visit rather than the full 60-day adjusted episode payment.[9] In this light, our paper imports the idea of reinsurance/repayment from these other areas, with the added features that we designate thresholds based on spending *residuals*, and we optimize the risk adjusted payment amount for the presence of the up and down-side risk sharing.

Section 2 contains a brief overview of risk adjustment and risk sharing in health plan payment in the three countries as well as a description of the data used for the empirical application. In the case of The Netherlands and the Marketplaces, the data are those actually used to calibrate the national risk adjustment system. The data from Germany are from a large sickness fund operating nationwide. In all countries, we split the data into equal-sized "training" and "test" samples to avoid overfitting problems. All estimation, including reinsurance thresholds, is done on the training samples. All outcome measures are calculated on the test samples.

Section 3 presents the results in step-wise fashion in order to isolate the contribution of each modification we propose. All simulations are balanced-budget, meaning any risk sharing is financed by reducing funds available for the risk-adjusted payment. Our baseline is current practice: a risk adjustment model estimated on total spending without regard for any reinsurance or other risk sharing features. We then add conventional reinsurance – i.e. based on spending – equal to 2% of total spending in each country.[10] By choosing the same percentage devoted to reinsurance we can more readily compare results across the three health insurance markets. We next target reinsurance to *residual* spending. Next, we add a repayment feature defined on negative residual spending (where risk adjustment payments exceed spending) and set the repayments equal to 2% of total spending. Finally, in the context of residual-based reinsurance and repayments, we reestimate the risk adjustment weights and simultaneously optimize the weights and the up and down-side thresholds

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[8] The Medicare Learning Network (MLN). Fiscal Year (FY) 2018 Inpatient Prospective Payment System(IPPS) and Long Term Care Hospital (LTCH) PPS Changes. October 2017 https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/clm104c03.pdf

[9] CMS.gov website, Home Health PPS. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/index.html

[10] In this paper we choose the shares of spending allocated by reinsurance (and repayments) for purposes of illustration. In practice, the regulator might set these parameters in the light of the tradeoffs involved in improving selection-related incentives at the expense of reducing incentives for cost control. We make some comments on this tradeoff in the context of reinsurance and repayment policy later in the paper.

for reinsurance and repayment. After this exercise for a fixed share devoted to reinsurance, we show results for various combinations of reinsurance and repayment, all with optimized regression weights. Specifically, we study the four combinations of reinsurance at 1% and 2% and repayment at 0% and 1%. All this is done in parallel in the three countries to compare the impacts of identical policies in different health insurance markets.

We find that in spite of major differences in patterns of health care spending and risk adjustment practices in the three countries, residual-based reinsurance and repayment has powerful and remarkably similar impacts on individual-level fit across settings. In the optimized systems, 2% residual-based reinsurance paired with 2% residual-based repayments leads to improvements in individual-level payment fit varying from about 30 percentage points in the Netherlands and the Marketplaces to about 40 percentage points in Germany. Section 4 comments on the practical application of our findings and discusses some potential next steps in research. Methodologically, the primary takeaway from our paper is that full optimization of payment system parameters requires teamwork between risk-adjustment weights and reinsurance/repayments. Empirically, the primary takeaway is that modifying payment systems using 2% reinsurance/2% repayment based on residual spending and optimized risk adjustment weights approximately doubles the individual-level fit of conventional risk adjustment models.

2. Health Plan Payment in Germany, The Netherlands and the U.S. Marketplaces

Individual health insurance markets in Germany, The Netherlands and Marketplaces in the U.S. are organized around principles of regulated (or managed) competition, as first proposed by Enthoven (1980). Belgium, Colombia, Israel, Switzerland, and Medicare Advantage (the private option for Medicare beneficiaries in the U.S.) among other countries and sectors, share some similar features.[11] Regulated competition puts health plans in competition with the goal of generating incentives for cost containment and efficient plan design.[12] In policies that differ country-by-country, regulators promote competition by allowing health plans some, but limited, discretion about plan design (e.g. in terms of provider network and cost sharing options). At the same time,

[11] McGuire and Van Kleef, eds. (2018) contains descriptions of the individual health plan markets structured as regulated competition in 14 countries and sectors.

[12] By 'health plan competition' we mean competition among health insurers who offer one or multiple health plans. A 'health plan' refers to a health insurance product. All consumers who have the same 'health plan' have an identical contract with the same insurer concerning benefits coverage, cost-sharing, quality, services, etc. Since objectives and strategies of insurers can differ across health plans (primarily in the U.S. and The Netherlands), this paper will speak of health plans instead of insurers as decision makers.

the regulators manage competition in order to guarantee public objectives such as affordability and accessibility. In all three countries, enrollee premiums do not differ according to the health status of individuals while some form of risk adjustment of plan payment is done centrally to transfer funds to plans enrolling more costly individuals. Risk adjustment is designed to ensure plan viability, but more importantly, to counter plan incentives to attract the healthy and deter the sick from joining the plan.

2.1 Germany

The public health insurance system in Germany is the largest individual health insurance market in the world, both in terms of the number of lives covered and in the total plan payments (Wasem et al., 2018). In 1996, free choice of sickness funds was introduced for all members of the social health insurance system. Two years prior, in 1994, risk adjustment was established to provide equal opportunities for sickness funds with diverging risk profiles of their insured. In 2009, the formerly mostly demographic risk adjustment system became morbidity-based. Since then the payments to the sickness funds are calculated by an individual-level least squares regression weighted by the fraction of the year the individual is insured in the social health insurance system. Risk adjustors (see Table 1) are included in the form of dummy-variables. The model is prospective: expenditures from one year are explained by demographic characteristics from the same year but the morbidity characteristics are taken from the previous year.[13] From 2002 until 2009, risk adjustment was complemented by reinsurance from a high expenditure pool through which sickness funds were reimbursed 60% of spending above a certain individual threshold. With the introduction of the morbidity-based risk adjustment the high expenditure pool was abolished. Debate continues about reintroduction of elements of reinsurance.[14]

Data from Germany used in this paper are from one large national insurer.[15] Table 2 summarizes some features of the German data as well as for the other countries.

2.2 The Netherlands

Since 2006, The Netherlands have had a national health insurance system based on principles of regulated competition, with a risk adjustment system that has been improved over time. In the early years, the risk adjustment system was supplemented with reinsurance to mitigate

[13] The German regression is run on cost per day which is equivalent to an annualization.

[14] See for example Drösler et al. (2017).

[15] More description of the data source is contained in Schillo et al. (2016).

selection incentives remaining after risk adjustment and to mitigate plans' business risk due to financial uncertainties surrounding specific healthcare system reforms. As risk adjustment was improved and the health insurance market stabilized, reinsurance thresholds were increased; in 2014, reinsurance was abolished altogether. In 2018, the Dutch risk adjustment system consists of three different models, one for each of the following categories: somatic care, mental health care, and out-of-pocket payments due to the mandatory deductible of 385 Euros per adult per year (Van Kleef et al., 2018a). For simplicity, our analyses will be based on the model for somatic care only. This model accounts for about 85% of total spending and includes 193 risk classes, which are described in Table 1. Risk classes take the form of dummy variables indicating whether an individual is a member of a class or not. Currently, risk adjustor coefficients are derived by an individual-level weighted least squares regression of annualized expenditures in 2015 on demographic variables from year 2015 and the disease indicators listed in Table 1 from 2014 or before. Data on expenditures and characteristics cover the entire Dutch population with a health plan in 2015. Prior to estimation, some modifications are applied to make the available data representative for 2018 (e.g. including modifications for changes in the benefits package).[16]

Data from The Netherlands are those actually used for calibration of plan payment models, and have been used in a number of research papers.[17]

2.3 U.S. Marketplaces

The U.S. Marketplaces, created as part of the Affordable Care Act (2010) and popularly known as "Obamacare," began enrolling individuals and families in 2014 (Layton, Montz and Shepard, 2018). These markets, organized at the state level, are intended to provide affordable health insurance for those who do not receive insurance through their employers or through public programs providing coverage for the elderly (Medicare) or for low-income families (Medicaid). The law included a number of reforms which shifted the individual health insurance market toward a version of regulated competition, including income-related subsidies, (partial) community rating of premiums, mandated coverage of a basket of "essential health benefits," and guaranteed issue and renewal provisions prohibiting plans from rejecting applicants based on their health status. As of

[16] In the regression model expenditures are annualized and the observations weighted by the fraction of the year an individual was enrolled in 2015 (which can be smaller than 1.0 due to birth, death, migration and other factors). For example, a person with a half-year enrollment and 2,000 Euro expenditures is given a weight of 0.5 and annualized expenditures of 4,000 Euro (2,000/0.5).

[17] For some recent papers see Layton, McGuire and Van Kleef (2016), Van Kleef et al., (2017), Van Veen et al., (2017).

the first quarter of 2018, about 10.6 million Americans were enrolled in a Marketplace plan, 87% of whom receive premium subsidies, representing over 70% of the individual health insurance market. The extent of coverage in Marketplace plans ranges from approximately 60% on average for "bronze" plans to 90% for "platinum" plans. The Marketplace risk adjustment model assigns risk scores to enrollees based on their demographics and observed diagnoses during the concurrent plan year (i.e. calendar year). Risk scores are calculated using a model developed by the Department of Health and Human Services (HHS), the HHS Hierarchical Condition Categories (HHS-HCC) model. The HHS-HCC model predicts an enrollee's medical spending in the current year by mapping diagnoses coded on insurance claims into one of currently 127 HHS-selected HCCs, which were drawn selected from the larger set of HCCs available in the diagnostic classification system).[18] A "temporary" reinsurance component was part of the Marketplace payment system in the first three years, and due to a continuing concern about high-cost cases, a modest reinsurance function was restored through changes in the formula transferring funds among health plans (Jost, 2016; Layton and McGuire, 2017). As of August, 2018, seven states in the U.S. have received waivers from the federal government to reintroduce reinsurance in their Marketplaces.[19]

The U.S. data are an updated version of the MarketScan data used to calibrate plan payment models in the Marketplaces. The 8.2 million sample from the larger MarketScan files is drawn using the same exclusion/inclusion criteria used by HHS in estimating risk adjustment models, as has been done in previous research on Marketplace payment models.[20]

3. Residual-Based Reinsurance and Repayment, and Optimized Risk Adjustment Weights

This section defines parameters of the plan payment systems and summarizes the payment systems studied in the simulations.

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[18] Kautter et al. (2014) describe the choice of the original 100 HCCs. In 2016, there were 127 HCCs. In 2018 some modifications were added using drug use indicators and enrollment duration factors. https://www.cms.gov/CCIIO/Programs-and-Initiatives/Premium-Stabilization-Programs/Downloads/2018-Benefit-Year-Final-HHS-Risk-Adjustment-Model-Coefficients.pdf.

[19] https://www.commonwealthfund.org/blog/2018/affordable-care-act-under-trump-administration?omnicid=EALERT1465357&mid=mcguire@hcp.med.harvard.edu.

[20] See Layton et al. (2017), Layton and McGuire (2017). Following practice for estimating risk adjustment models in the Marketplaces, our sample is restricted to those individuals who had both prescription drug and mental health coverage and who had no negative or capitated claims. In addition, we further restricted our sample population to those continuously enrolled for twelve months who were in a non-HMO plan in the first and last month. The U.S. data are for full-year enrollees only, following current practice used for estimation of risk adjustment models for the Marketplaces.

3.1 Plan Payment Models

A risk adjustment payment consists of the summed product of the scores on a set of risk adjustor variables and the payment weights on these variables which we call the β weights. The risk adjustor variables differ by country as set out in Table 1. We treat the choice of risk adjustors as given. That is, for the plan payment models studied for Germany, for example, the risk adjustor variables are the same as those actually used and described in Table 1. Model 1 in the first row in Table 3 refers to this risk-adjustment-only payment model where the β weights are estimated in a least-squares procedure following the estimation practices used in each country.

Model 2 adds conventional reinsurance. A plan receives a reinsurance payment equal to spending less a preset threshold of spending, referred to as an attachment point.[21] Figure 1 depicts typical reinsurance defined on plan spending per person. Some individuals within an insurance pool will have spending at zero. For those with positive values of spending, the distribution is highly skewed to the right. In a typical large population, there will be individuals with spending in the millions of dollars or Euros. We set the threshold in our first set of models such that 2% of total plan payments consist of reinsurance and finance the reinsurance by a flat reduction of the risk adjustment payment from all individuals (equal to 2% of mean spending).

Model 3 begins incorporating the ideas in this paper. Keeping the same risk adjustment weights estimated in Model 1, reinsurance now applies to spending residuals after risk adjustment rather than total spending. A typical distribution of residuals, i.e., spending less risk adjustment payment, is depicted in Figure 2. Residuals could be positive or negative (and must average zero in the population used for estimating the risk adjustment payment weights). A positive residual indicates the plan is spending more than it is paid. A large right tail persists after risk adjustment because risk adjustment payments do not fully capture extreme spending. Reinsurance based on residuals reimburses a plan for residual spending above a positive residual threshold. Residual-based reinsurance in our first set of analyses redirects the 2% in reinsurance payments.

Model 4 also keeps the β weights from Model 1 but adds a repayment feature to the plan payment system, requiring a plan to repay residual spending below a negative threshold. For example, the negative threshold might be -$100k, in which case a plan would have to return any individual-level overpayment exceeding $100k. Figure 2 shows what a reinsurance/repayment

[21] Reinsurance can pay less than 100% of costs above a threshold. For simplicity, we assume a reinsurance share of 100%, though our methods would work for other shares.

system looks like, with upper and lower thresholds based on residuals defining the regions for reinsurance and repayment.

Finally, Model 5 optimizes the β weights to take account of the presence of reinsurance and repayments. Specifically, the β weights are reestimated on plan obligations net of reinsurance and repayment. New β weights, however, imply new thresholds for reinsurance and repayment. With these new β weights the distribution of residuals changes and we refigure the thresholds that would set aside 2% of funds for reinsurance and for repayment. With new thresholds, we reestimate β weights again and repeat the iterative procedure until β weights and reinsurance/repayment thresholds no longer change materially.[22]

3.2 Combinations of Residual-based Reinsurance and Repayment

A second set of analyses studies various combinations of residual-based reinsurance and repayment all with optimized β's. Specifically, we consider the following alternatives, with the first number indicating the percent of funds set aside for residual reinsurance and the second number the percent designated for residual repayment: (1,0), (1,1), (2,0).

3.3 Metrics of Plan Payment Performance

We report several metrics for plan payment system performance beginning with fit at the individual level. When plan payments are the predicted values from a risk adjustment regression, fit at the individual level is simply the R^2 from the risk adjustment model. Any net contribution of risk sharing to fit is captured by a generalization of the R^2 referred to as 'Payment System Fit' (PSF).[23] PSF is an R^2-type statistic (analogous to a pseudo-R^2) measuring the degree to which plan payments for individual i, R_i, track spending for that individual, Y_i. PSF recognizes that the payment a plan receives for an individual, R_i, can include other components in addition to the predicted spending from a risk adjustment model.

$$\mathrm{PSF} = 1 - \frac{\sum(Y_i - R_i)^2}{\sum(Y_i - \bar{Y})^2} \qquad (1)$$

We also measure individual fit by Cumming's Prediction Measure (CPM), a linear version of (1).[24]

Payment system alternatives are also commonly evaluated on how funds are redistributed among different population groups, defined, for example by a specific illness. Policy evaluations in

[22] We found there is little gained from iterating after the second time.

[23] For other applications of payment system fit see Geruso and McGuire (2016) and Layton et al. (2017).

[24] Although R-squared is by far the most commonly reported statistic, CPM is also frequently used. For a discussion of the many measures used in risk adjustment research, see Van Veen et al. (2015).

each country define groups of interest based on illness, previous levels of spending, past health care use, and other information available in the country.[25] In order to define a group of potential interest in parallel across the three countries, we study over/undercompensation for those in the top decile of spending in the previous year. Persistence of spending means that the high spenders from last year are likely to be underpaid in the current year. Our group-level payment fit measure, the predictive ratio (PR), is, as a ratio, comparable across the three health insurance markets. Letting the index g designate those in the top decile last year

$$PR_g = \frac{\sum_g R_g}{\sum_g Y_g} \qquad (2)$$

PR_g will take a value like 80% if plan payments for this group underpay on average by 20%. PR_g closer to 100% indicates better plan payment performance for this group.

Finally, we track the redistributions accomplished by the payment system in relation to the baseline risk-adjustment payment model with no reinsurance/repayment. Funds redistributed between models 2-5 and model 1 are measured by the absolute value of changes in payment at the individual level between the two systems. For example:

$$\text{Funds redistributed for model 2} = \sum_i |(R_i^2 - R_i^1)| \qquad (3)$$

where R_i^2 is the payment for individual i in model 2 and R_i^1 is the payment in model 1. Funds redistributed measures the potential of a payment system to affect group-level allocations for as-yet unspecified groups. To make measure (3) comparable across the three settings, we present the funds redistributed as a percentage of total spending. We do not regard funds distributed as a measure of plan performance; it simply tells us how much money is moved around with the various payment models.

4. Results

In each country, data were randomly divided into equal-sized training and test samples. All estimation, including selection of reinsurance and repayment thresholds, is conducted on the training sample; all outcome measures are calculated on the test sample. For example, when we estimate risk adjustment models, the β weights are estimated on the training sample, but fit statistics are reported from the test sample. Similarly, when we choose an upper threshold in order for reinsurance to pay for the top 2% of spenders, the choice is made based on the distribution of

[25] For a review of some of these evaluations from Europe and the U.S., see Layton et al. (2017).

spending in the training sample. Results reported on the test sample will therefore not yield exactly 2% set aside for reinsurance.

4.1 Base Risk Adjustment Model and Residuals

We estimate risk adjustment models on total spending with the current specification used in each country. Table 4 reports summary statistics from the test samples for the risk adjustment models and information on the distribution of residuals (i.e. spending less risk adjustment predictions). The values of the R-squared are similar to those in other reports, 24.6% for Germany (Drösler et al., 2017), 31.6% for the Netherlands (Cattel et al., 2017), and 35.8% for the U.S. Marketplaces (Layton, Montz and Shepard, 2018). Better fit for the Marketplace model compared to that for Germany or The Netherlands is because Marketplaces use a concurrent risk adjustment model rather than the prospective models used in the other two countries.

Positive residuals result when spending is higher than predicted; negative residuals result when spending is lower than predicted. The mean absolute deviation ranges from over five thousand dollars in the Marketplaces to less than two thousand Euros in The Netherlands. Even after risk adjustment, the maximum residuals are in the millions of dollars or Euros, and the minimum residuals in the hundreds of thousands of dollars or Euros. Properties of the left side of the distribution of residuals depend heavily on the risk adjustment model. The minimum possible value for residual spending is the maximum value for predicted spending from the risk adjustment model (if that person spends nothing). In all three countries risk adjustment generates substantial overpayments for a meaningful share of the population. In Germany and The Netherlands one percent of the population is overpaid by about 10k Euros or more, and in the Marketplaces, overpayment exceeds $25k for one percent of the population. The median residual in each country is negative. In all three countries, residuals do not turn positive until about the 75th percentile of the distribution. This means that the large majority of the population is profitable for plans; losses are concentrated in the much smaller share of the population on the right side of the residual distribution.

4.2 Residual-Based Reinsurance and Repayment

Table 5 reports results for Models 1-5 listed in Table 3. In Models 2-3, reinsurance payments sum to 2% of total spending. In Models 4-5, reinsurance payments and repayments each sum to 2% of total spending. Risk adjustment alone leaves the top decile of spenders from the previous year undercompensated in each country, with the U.S. Marketplaces showing the lowest PR; the Dutch model is most successful by this metric. The Dutch model contains risk adjustors

based on prior high spending (see Table 1) which partially address underpayment for the last-year high-spending group.

The second set of rows for Model 2 shows the impact of conventional reinsurance. Setting aside 2% of funds for reinsurance corresponds to reinsurance thresholds of €140k in Germany, €122k in the Netherlands, and $350k in the U.S. Marketplaces. Notably, these thresholds touch a very small fraction of the population, less than .1 % in all markets – another indicator of the concentration of spending on the far-right tail of the spending distribution. Conventional reinsurance at 2% has a powerful effect on individual fit of payments to spending. Compared to the risk-adjustment-only model, PSF more than doubles for Germany, and moves to the range of around 60% in all three countries. PR for the top-decile of spenders in the prior year increases everywhere.[26] Conventional reinsurance moves about 4 % of the funds in comparison to risk-adjustment only in all three countries.

Model 3 targets the 2% set aside for reinsurance to residuals from the base risk adjustment model rather than spending. Thresholds defined in terms of residuals are lower than with conventional reinsurance since the risk adjustment amount is subtracted from spending to define residuals. Still, less than .1 % of the population is affected by residual-based reinsurance at 2%. Targeting the same reinsurance funds to residuals rather than spending buys an increase of about 3 percentage points in PSF in all countries. The 3 percentage point gain in individual fit compared to Model 2 is 'free' in incentive terms since the funds set aside for risk sharing are the same. Moreover, the 3 percentage point increase is substantial compared to potential improvements from adding risk-adjustor variables to already rich models.[27] Targeting residuals does not improve the PR for the top-decile of spenders in the prior year; in fact, it decreases slightly in all three markets. A potential explanation for this finding is that – in contrast to conventional reinsurance (Model 2) – residual-based reinsurance avoids 'double' payments for people with both high predicted spending and high

[26] Note that the PR for the top decile of spenders in t-1 is likely to be sensitive to how reinsurance is financed and whether or not risk adjustment weights are optimized for the presence of reinsurance. More specifically, the combination of a flat contribution and no optimization (as is true for model 2) is likely to result in double payments for people with both high predicted spending and high actual spending. Since these people are likely to be overrepresented in the group of high spenders in t-1, this group as a whole is likely to benefit from these overpayments.

[27] For example, Van Kleef et al. (2018b) find that inclusion of chronic conditions reported by general practitioners would improve the R-squared of the Dutch risk adjustment model by <.01. The latest published evaluation of the CMS-HCC risk adjustment system (Pope et al., 2011) reports an increase in R-squared of .014 between V12 and V21. V21 was, however, viewed as too gameable and some variables were dropped in the V22 put in place. The R-squared of V22 will thus be less than for V21.

actual spending (see also footnote 26). Assuming these people are overrepresented in the top decile of spending in the prior year, this group as a whole might receive less payment under residual-based reinsurance than under conventional reinsurance, thereby lowering the PR. This finding indicates that switching from spending-based reinsurance to residual-based reinsurance may not improve group-level fit for some groups of interest. Finally, funds redistributed increase only slightly in relation to conventional reinsurance.

Residual-based repayments at 2% are added to the payment models in the results for Model 4 in the next set of rows. The repayment threshold is much lower in absolute value than the reinsurance threshold because, as we have seen, the residual distribution is much less skewed on the left. While less than .1% of the population remain touched by reinsurance, the repayment threshold is crossed by less than 1% of the population in the three countries. Repayments augment payment system fit further in the .02 - .04 range. PR for the top-decile of spenders in the prior year decreases slightly. Some of those with high spending last year would generate high risk scores this year, and may fall in the highly overcompensated group if spending for whatever reason falls a lot this year. Taking funds from these people increases undercompensation from past high spenders. A repayment feature has little effect on the share of funds redistributed.[28]

The last set of results optimizes β weights in each country, derived from the iterative procedure described earlier. Thresholds from the previous set of rows (e.g., $209,826 for the reinsurance threshold for the Marketplaces) are used to truncate the left and right-hand side of the spending distribution for estimation of the β weights. Iteration is required since the thresholds from the "old" model are not exactly right for the "new" model. Reestimation of β weights has some interesting effects. The thresholds for reinsurance fall, which leads to slightly more people crossing the reinsurance threshold. Both in absolute and in relative terms, the effects of reestimation on the thresholds for repayment are bigger. Consequently, the share of population crossing the repayment threshold falls substantially, to, for example in the Marketplaces, only .28%. Reestimation of β weights must improve payment system fit, but the gains in fit at the individual level are small, in the third decimal place in all countries. PR for the previous high spenders is improved in relation to Model 4, but remains below the PR with Models 2 and 3. Optimization of β weights adds to the redistribution of funds in comparison to the base risk adjustment model. Whereas Model 4 only

[28] One possibility: (in modalities without optimization/changes of RA weights) 2% reinsurance will always result in about 4% redistribution (2% due to the reinsurance payments themselves and 2% due to the necessary reinsurance contributions). It doesn't really matter who makes the reinsurance contributions.

affects payments for people in the reinsurance and repayment ranges, Model 5 affects payments for other people too (due to changes in risk adjustment payment weights).

Results for PSF from Table 5 are summarized in Figure 3. The improvements in individual fit are very large, and remarkably similar in the three markets. Adding 2% conventional (i.e. spending-based) reinsurance to risk adjustment comes with a substantial gain in PSF. Changing from conventional to residual-based reinsurance gives non-trivial improvement. Adding 2% residual-based repayments also improves fit, though not as much as 2% (residual-based) reinsurance. The latter is because the residual distribution is more skewed on the right than on the left. Optimization of risk adjustment for the presence of 2% reinsurance/2% repayments does not substantially affect PSF. Note however that the importance of basing reinsurance on residuals and optimizing β weights is likely to increase as the share of funds devoted to reinsurance increases. The intuitive explanation is that with larger shares of reinsurance, overlap with risk adjustment payments is greater. Paying on residuals and optimizing the β's both contribute to avoiding overlap.

4.3 Reinsurance and Repayment with Alternative Thresholds

Table 6 presents the results for four new combinations of residual-based reinsurance and repayment. All payment models in Table 6 are similar to Model 5 from Table 5 except the share of funds devoted to reinsurance or repayment is the same or less. For each of the repayment/reinsurance modalities in the table β weights are optimized. Generally, the payment alternatives do little to increase the PR for last year's high spenders relative to conventional reinsurance. With residual-based reinsurance at 1%, with or without repayment, PSF is 50% or higher, increasing the individual-level fit of the Dutch model by 20 percentage points and the models in Germany and the US Marketplaces by 30 percentage points. When residual-based reinsurance is 2% of funds, with and without repayments, PSF is in the 60% range or higher, ultimately doubling the PSF in comparison to the current risk adjustment model in each market. For all the options shown, the number of people touched by reinsurance or repayment is very small, less than .05% (5 in 10,000) in all simulations.

Figure 4 summarizes the increments to PSF by residual-based reinsurance and repayment with optimized β weights. Patterns are very similar in all three countries.

Results in Table 6 and Figure 4 bear on the tradeoff of loss of cost containment incentives from risk sharing and fit of the payment system at the individual level. Incentives are diluted as

more funds are devoted to reinsurance or repayment.[29] The loss of cost control incentives depends on plan expectations about patterns of cost, but is approximated by the share of funds devoted to reinsurance and repayment.[30]

5. Discussion

Where reinsurance and risk adjustment are applied simultaneously, individual-level fit is maximized by basing reinsurance on the residuals that remain after risk-adjustment payments, and calibrating risk-adjustment weights on the spending net of the risk-sharing features of the payment system. Reinsurance can be flanked by repayments to further improve the fit in the tails of the residual distribution. Full optimization of payment system parameters to improve fit requires teamwork between risk-adjustment weights and reinsurance/repayments. Our paper shows that it is straightforward to mesh choice of risk adjustment weights with choice of risk sharing parameters. We do this for a series of models with the data actually used to build the payment systems in The Netherlands and the U.S. Marketplaces, and with a large insurer's data from Germany.

It will come as no surprise to researchers that conventional reinsurance can markedly improve the individual-level fit of a payment system. We add to this by showing that with a fixed share of funds going to reinsurance, teamwork – paying on residuals/optimizing risk-adjustment weights – gives fit another boost. The empirical results in terms of introduction of residual-based reinsurance, repayment, and optimized risk adjustment weights work in remarkable parallel in the three health insurance markets, with their different risk-adjustment models, health care systems, and

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[29] Reinsurance based on residuals after risk adjustment is likely to improve incentives for cost control over conventional reinsurance with the same budget for reinsurance. The argument is parallel to that made by Van Kleef, Van de Ven and Van Vliet (2009) in the case of "shifted deductibles" where the authors moved the deductible range to be more likely to hit where the marginal decisions were being made about consumption. The deductible range was moved higher for those with higher predicted costs. In our case of "shifted reinsurance," moving the range where reinsurance kicks in higher for individuals likely to be higher costs makes it less likely a plan could anticipate being in the reinsurance range for any individual. Thus, reinsurance based on residuals maintains plans' incentives to control costs even for those with very high predicted costs. Our constraint on incentives is best interpreted as a simple operational way for a regulator to limit the degree incentives are diluted with reinsurance/repayment, not as a precise measure of "power" of a plan payment contract.

[30] With "static" expectations, the loss of incentive is just equal to the share of plan spending devoted to reinsurance and repayments. With perfect foresight, a plan knows that for persons destined to fall above the reinsurance or below the repayment threshold, the marginal spending is not plan responsibility, and the incentive effects are equal to the share of spending associated with the individuals over or below the thresholds.

simple magnitudes of spending. We come out of our analysis with a high degree of confidence that our findings generalize to other health care systems and payment models.

Teamwork adds to fit "for free" in the sense of creating no extra incentive cost associated with risk sharing. For any given share of funds devoted to risk sharing, joint optimization of payment and risk-adjustment parameters is worthwhile to improve fit. By analysis of a series of risk-sharing options, we quantify the tradeoff for a regulator, showing what can be had in terms of better fit at what cost in terms of the incentive effect of risk sharing. We regard the tradeoff to be very favorable. Massive gains in individual-level fit can be had touching only a very small portion of the individuals in the insurance pool.

Consideration of incentive effects of a payment system are important but complex. Even putting aside incentives related to risk selection, the cost control incentives of risk-adjusted payments are not always straightforward. The incentive effects of reinsurance and other risk-sharing features are evident, and can be measured in terms of the share of people or the share of funds affected. Risk-adjusted payments, depending on the adjustors used and their weights, also dilute cost-control incentives but the magnitude of the effects are less clear. Use of a concurrent risk adjustment model as in the US Marketplaces or use of past spending as a risk adjustor as in The Netherlands each also dilute incentives for cost control. More generally, any risk adjustor variable based on health care activity increases incentives for that activity to be undertaken.[31]

An alternative way to frame a policy discussion about incentives would be to ask, for example, what is the way to achieve a given fit with the least sacrifice in terms of incentives? A series of interesting questions emerges from this perspective. Suppose we were to ask, for The Netherlands, what would be needed in terms of residual-based reinsurance to achieve the same level of fit (in terms of the measure used in the Netherlands) as now but dropping past-spending groups from the risk adjustor variables? Or, for the Marketplaces, what level of residual-based reinsurance would be needed to achieve a target level of fit if only diagnoses from inpatient episodes counted toward morbidity indicators? Ideally, a regulator would have available comparative information about the incentive effects of risk adjustment as well as of any risk sharing. This is an open and important area for future research.

[31] This incentive is distinct from the incentive to "upcode" (or "right code") which refers to coding practices not incentives to do more. Use of risk adjustor variables based on activities reported in claims generally include both types of incentives.

We showed in our simulations that a little bit of residual-based reinsurance improves fit markedly keeping the current risk adjustment in place. A corollary is that a little bit of residual-based reinsurance could instead compensate for a simplification of the risk adjustment formula, going in the opposite direction to decades of research in all three countries seeking new risk adjustor variables to add to the formula. Simplification by dropping potentially problematic risk adjustors can improve incentives. Future work can study the simplifications that could be achieved by judicious use of targeted risk sharing.

The focus on residual spending calls attention to residuals on the other side of the spending distribution: individuals for whom risk adjustment payments greatly exceed what they spend. Our simulations explored this new territory in payment system design. Repayments, the mirror-image of reinsurance -- are an intriguing policy option. Repayments improve fit at the individual level. Repayments obviously also "give money back". If funds repaid, for example, were set equal to the funds devoted to reinsurance, the same level of funding could be devoted to risk adjustment before and after introduction of risk sharing. Very large left-hand side residuals also raise the simple question of whether it is necessary and appropriate to confer profits on the order of hundreds of thousands of dollars or Euros to a plan for a single individual. Should we limit profits such that, for example, a plan can make no more than $50k on any one person?

Before deciding what, if anything, should be done to modify payment systems in light of the high overpayments, research is needed to learn more about the people who fall on the far left of the distribution of residuals. To note just two relevant questions: What combination of flags and services is associated with such gross overpayments? Are people on the left persistently on the left?

In this paper our performance metrics were chosen so as to be comparable across the three countries. It is well-recognized, however, that health plan payment systems need to be evaluated on other criteria than simply fit at the individual level. Ideally, these criteria follow the specific objectives of the regulator in each country or sector. For example, when a regulator is concerned about selection incentives regarding groups with chronic illnesses evaluation, metrics should adequately capture these incentives. We believe consideration of other criteria, such as under payment for persons with chronic conditions and the practical feasibility of our ideas in a specific institutional setting, is best pursued on a country-by-country basis.

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Table 1
Health Plan Payment in Germany, the Netherlands and the U.S. Marketplaces

	Germany (2018)	Netherlands (2018)	Marketplaces (2018)
Number of individuals covered	72.2 m	17.1 m	10.6 m
Average plan spending per person per year	3,034 €	2,504 €	$5,772 (silver plan benchmark average premium 2018)
Geographic market	National	National	State with sub-state rating areas
Number of plans	110	About 60 (varying by premium and contracted care; each plan can come with deductible options and group arrangements)	1-15, mean 4.2 varies by rating area
Premiums	Single premium per health plan	Single premium per plan; rebates for voluntary deductibles and group arrangements	Limited age bands
Risk adjustment data	Morbidity data from 2017; spending data from 2018. Interim payments are made prior to final reconciliation	Spending from 2015 (made representative for 2018, e.g. in terms of benefits package and projected spending)	2016 MarketScan data on large employers/insurers
Risk adjustment demographics	Age, sex, reduced earning capacity, reimbursement status	Age, sex, regional factors, socio-economic status, source of income, household composition, yes/no institutionalized, level of education	Age, sex, geography
Risk adjustment disease indicators	201 hierarchical morbidity groups (HMG) based on: • prescribed drugs • in- and outpatient diagnoses	124 morbidity indicators based on: • prescribed drugs (PCGs) • hospital diagnoses (DCGs) • physiotherapy diagnoses • mental care diagnoses • durable medical equipment • multiple-year high or low spending • one-year spending on home care	Based on 127 HCCs (2016)

Table 1 continued

	Germany (2018)	Netherlands (2018)	Marketplaces (2018)
Timing of risk adjustment disease indicators	Prospective (i.e. disease indicators are based on information from the prior year)	Prospective (i.e. disease indicators are based on information from one or multiple prior years)	Concurrent (i.e., disease indicators are based on data from the same year as spending predictions)
Risk adjustment estimation procedure	Weighted least squares	Weighted least squares	Weighted least squares
Risk adjustment comments	Separate model for sick leave payments	Separate models for somatic care, mental health care and out-of-pocket spending below the mandatory deductible	Separate models for age groups and tiers of coverage
Risk sharing	Reinsurance 2002 - 2008	Reinsurance until 2014; risk corridors until 2016	Reinsurance 2014-2016; functional reinsurance restored in 2017 through transfer formula.
R-squared from the risk adjustment regression	26%	32% for somatic care 23% for mental healthcare 33% for OOP spending	35%

Note: Due to the volume of information presented here notes for each element are not provided. There are some additional features of the payment systems in each country not contained in the table, for example, Germany has special rules for those living abroad and for a small number of individuals paid by cost reimbursement. For detailed descriptions of each of these payment models with much of the information covered here, see Wasem et al. (2018), Van Kleef et al. (2018) and Layton, Montz and Shepard (2018).

Table 2
Data from Three Countries (Full Samples)

	Germany	The Netherlands (somatic care only)	U.S. Marketplaces
Source	Nationwide operating sickness fund	Insurers and government agencies	Large employers/insurers
Number of individuals	2.9 million	17.0 million	9.8 million
Year	2015	2015	2016
1st percentile spending	€ 0	€ 50	$0
10th percentile spending	€ 98	€ 92	$0
90th percentile spending	€ 7,062	€ 4,573	$14,085
99th percentile spending	€ 35,591	€ 33,003	$80,974
Maximum Spending	€ 2,267,508	€ 7,819,446	$8,541,629
Age range	Entire population	Entire population	21-64
Percent with disease indicator	49.1%	26.7%	21.4%

Note: U.S. data only covers people with full-year enrollment. Data from Germany and the Netherlands also covers people who were enrolled only part of the year. In the Dutch data spending is annualized here; in the German data it is not. The € 50 spending at the 1st percentile in The Netherlands is a mandatory fee everyone pays to register with a practitioner.

Table 3
Plan Payment Models Studied

Payment Model	Risk-Adjustment	Reinsurance	Repayment
Model 1: Risk adjustment only	β weights from least squares regression on total plan spending	None	None
Model 2: Risk adjustment plus conventional (i.e. spending-based) reinsurance	β weights from least squares regression on total plan spending	Full reinsurance after threshold of spending; financed by flat reduction in risk adjustment payment	None
Model 3: Risk adjustment plus residual-based reinsurance	β weights from least squares regression on total plan spending	Full reinsurance after threshold of spending less risk adjustment payment; financed by flat reduction in risk adjustment payment	None
Model 4: Risk adjustment plus residual-based reinsurance and repayment	β weights from least squares regression on total plan spending	Full reinsurance after threshold of spending less risk adjustment payment; financed by repayments (and – when total reinsurance is larger than total repayments – a flat reduction in risk adjustment payment)	Full repayment after threshold of risk adjusted payment less spending; contributes to financing reinsurance
Model 5: Risk adjustment plus residual-based reinsurance and repayment and with optimized β weights	β weights from least squares regression on plan obligations net of reinsurance and repayment	Full reinsurance after threshold of spending less risk adjustment payment; financed by repayments (and – when total reinsurance is larger than total repayments – a reduction in risk adjustment payment via the optimized β weights)	Full repayment after threshold of risk adjusted payment less spending; contributes to financing reinsurance

Table 4
Residuals from the Base Risk Adjustment Model

	Germany	The Netherlands (somatic care only)	U.S. Marketplaces
Fit of the risk adjustment model			
R-squared	23.7%	31.6%	35.8%
CPM	24.0%	31.8%	28.3%
Residuals	(Euros or Dollars)		
Mean absolute deviation	3,566	1,985	5,559
Min	-334,029	-382,283	-529,274
1st percentile	-10,905	-8,988	-26,511
10th percentile	-3,283	-2,240	-5,037
25th percentile	-1,651	-1,098	-2,832
Median	-827	-444	-1,530
75th percentile	-110	-59	55
90th percentile	2,870	1,375	5,472
99th percentile	32,097	20,380	49,035
Max	1,892,219	7,812,633	3,578,792

Note: Statistics are reported from the test sample based on estimates from the training sample. Data from Germany and the Netherlands are annualized here. The maximum residual for Germany is the largest value for an individual enrolled for the full year. U.S. data are full-year enrollees.

Table 5
Risk Adjustment, Reinsurance, and Repayment

	Germany	The Netherlands	Marketplaces
Model 1: Base Risk Adjustment			
Payment System Fit	24.0%	31.6%	35.8%
PR_g	76.7%	94.5%	69.0%
Funds redistributed	NA	NA	NA
Model 2: Conventional (i.e. spending-based) Reinsurance 2%			
Attachment points			
Upper Threshold	€139,810	€122,044	$350,301
Lower Threshold	NA	NA	NA
Population affected			
Above Upper Threshold	.04%	.04%	.06%
Below Lower Threshold	NA	NA	NA
Payment System Fit	56.4%	55.6%	60.5%
PR_g	80.3%	96.9%	73.1%
Funds redistributed	3.9%	4.0%	4.3%
Model 3: Residual-based Reinsurance 2%			
Attachment points			
Upper Threshold	€102,789	€90,975	$209,959
Lower Threshold	NA	NA	NA
Population affected			
Above Upper Threshold	.07%	.07%	.07%
Below Lower Threshold	NA	NA	NA
Payment System Fit	59.9%	58.8%	62.6%
PR_g	79.9%	96.4%	73.2%
Funds redistributed	4.0%	4.1%	4.4%
Model 4: Residual-based Reinsurance and Repayment (2%, 2%)			
Attachment points			
Upper Threshold	€102,724	€90,929	$209,826
Lower Threshold	-€11,044	-€12,009	-$48,832
Population affected			
Above Upper Threshold	.07%	.07%	.07%
Below Lower Threshold	.96%	.59%	.34%
Payment System Fit	62.6%	61.7%	66.6%
PR_g	76.8%	92.6%	71.0%
Funds redistributed	4.0%	4.1%	4.1%
Model 5: Residual-based Reinsurance and Repayment (2%, 2%) with Optimized β weights			
Attachment points			
Upper Threshold	€101,179	€88,908	$206,502
Lower Threshold	-€13,830	-€15,198	-$54,801
Population affected			
Above Upper Threshold	.07%	.07%	0.08%
Below Lower Threshold	.61%	.41%	0.28%
Payment System Fit	63.0%	62.0%	6.8%
PR_g	78.4%	95.1%	.71.5%
Funds redistributed	6.2%	6.2%	5.9%

Table 6
Residual-Based Reinsurance and Repayment with Optimized β's

	Germany	The Netherlands	Marketplaces
Base Risk Adjustment			
Payment System Fit	24.0%	31.6%	35.8%
PR_g	76.7%	94.5%	69.0%
Funds redistributed	NA	NA	NA
Reinsurance 1%; Repayment 0%			
Attachment points			
Upper Threshold	€169,932	€150,650	$370,588
Lower Threshold	NA	NA	NA
Population affected			
Above Upper Threshold	.03%	.02%	.03%
Below Lower Threshold	NA	NA	NA
Payment System Fit	53.3%	51.6%	55.8%
PR_g	77.3%	94.7%	70.3%
Funds redistributed	2.6%	2.2%	2.8%
Reinsurance 1%; Repayment 1%			
Attachment points			
Upper Threshold	€166,474	€146,457	$353,552
Lower Threshold	€-19,700	€-22,159	$-80,484
Population affected			
Above Upper Threshold	.03%	.02%	.03%
Below Lower Threshold	.25%	.15%	0.14%
Payment System Fit	55.4%	53.8%	58.4%
PR_g	77.6%	94.9%	70.6%
Funds redistributed	3.5%	3.3%	3.3%
Reinsurance 2%; Repayment 0%			
Attachment points			
Upper Threshold	€105,068	€92,827	$223,529
Lower Threshold	NA	NA	NA
Population affected			
Above Upper Threshold	.07%	.07%	.07%
Below Lower Threshold	NA	NA	NA
Payment System Fit	60.2%	59.0%	63.0%
PR_g	77.6%	94.9%	70.9%
Funds redistributed	4.7%	4.1%	4.8%
Reinsurance 2%; Repayment 1%			
Attachment points			
Upper Threshold	€102,253	€89,860	$212,733
Lower Threshold	€-18,156	€-20,552	$-71,782
Population affected			
Above Upper Threshold	.07%	.07%	.07%
Below Lower Threshold	.28%	.18%	.16%
Payment System Fit	62.1%	60.9%	65.3%
PR_g	78.0%	95.0%	71.2%
Funds redistributed	5.5%	5.1%	5.1%

Figure 1

Conventional Reinsurance Defined in Terms of Spending

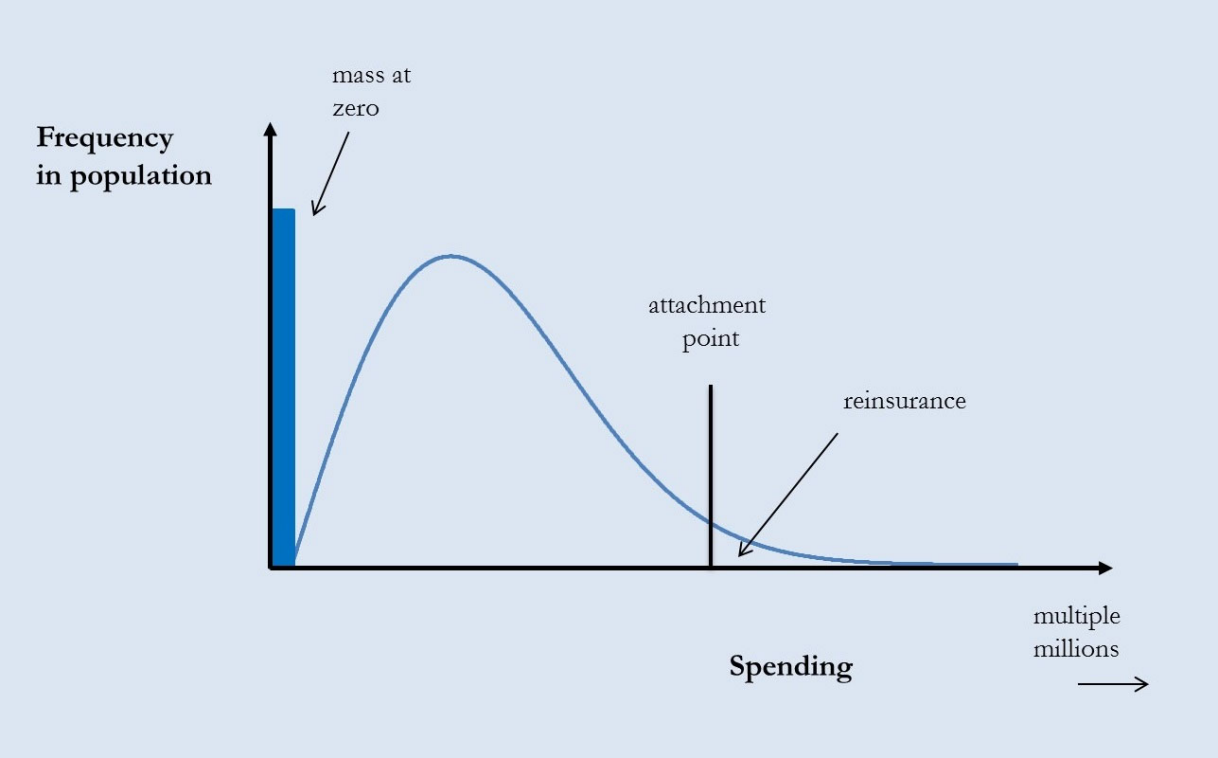


Figure 2

Reinsurance and Repayment Based on Residuals from Risk Adjustment

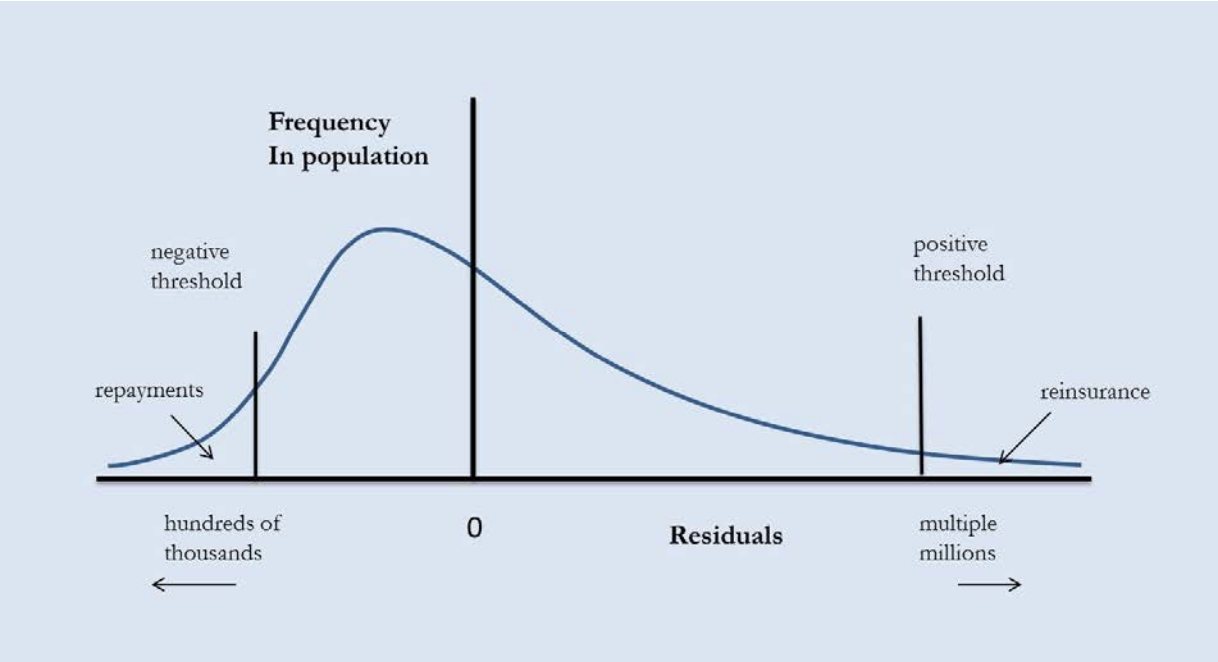


Figure 3

Payment System Fit of Five Models in Three Different Settings

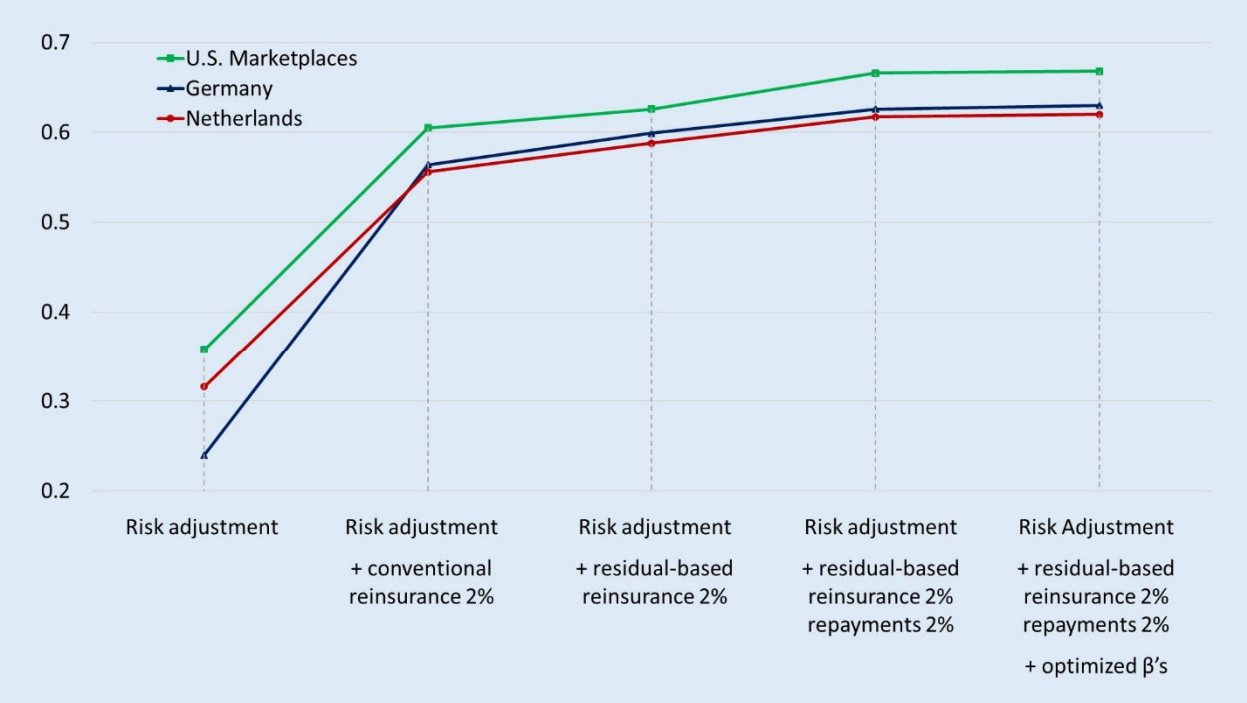
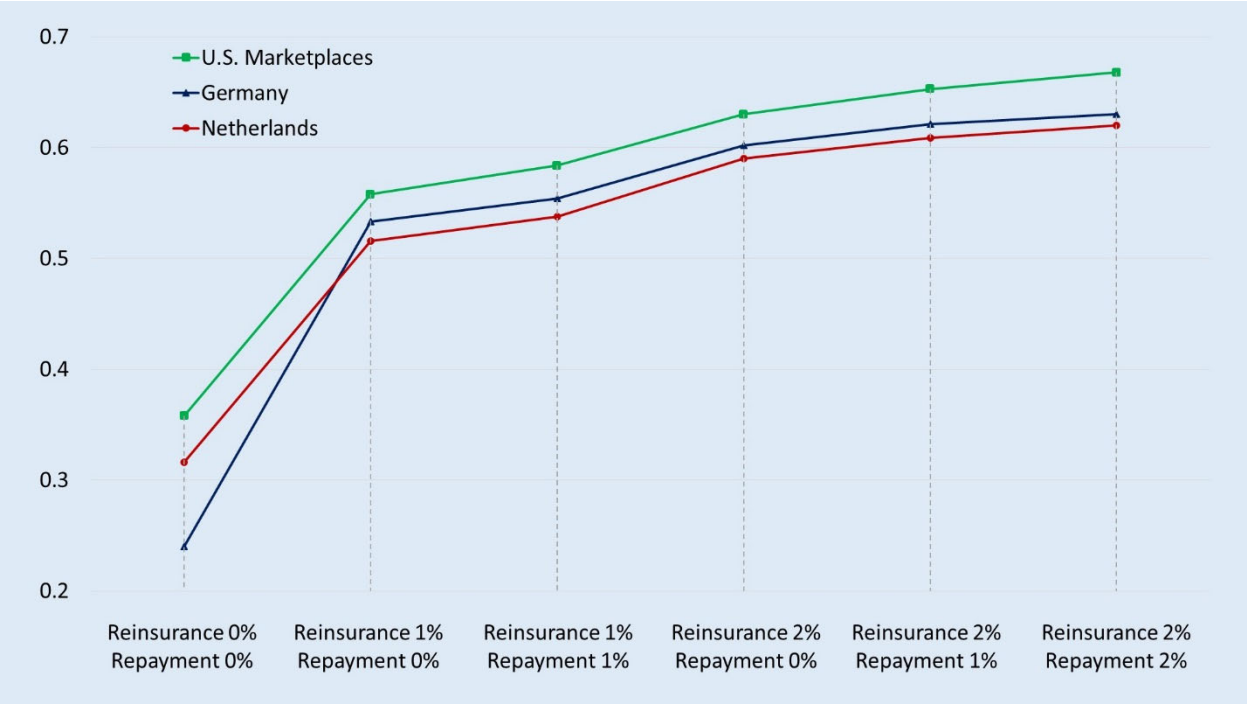


Figure 4

Payment System Fit of Six Combinations of Reinsurance/Repayment, all with Optimized Risk Adjustment Weights



STATISTICAL BRIEF #519:
Enrollment in High-Premium Employer-Sponsored Health Insurance by State: Private Industry, 2016

December 2018

Philip F. Cooper, PhD

Highlights

- In 2016, five states located in the Northeast, South, and West had a greater percentage of single-coverage enrollees in high-premium plans ($8,500 or more) than the U.S. as a whole.
- Nine states had a smaller percentage of single-coverage enrollees in high-premium plans than the U.S. as a whole: six were located in the South, one was located in the Midwest, and two were located in the West.
- There were six states, including the District of Columbia, that had a larger percentage of family enrollees in high-premium plans ($24,000 or more) than the U.S. as a whole: three were located in the Northeast, one was located in the South, and two were located in the West.
- In 2016, nine states had a smaller percentage of family enrollees in high-premium plans than the U.S. as a whole: one was located in the Northeast, two were located in the South, and three states each were located in the Midwest and West.

Introduction

This Statistical Brief reports estimates by state of the percentage of private-sector employees enrolled in employer-sponsored health insurance plans with high premiums, defined as those with annual premiums that were greater than or equal to the 90th percentile for single-coverage enrollees ($8,500) or family coverage enrollees ($24,000) in 2016. That is, of all enrollees across the U.S. within each coverage type, 10 percent had premiums at or above these amounts. These estimates were obtained using data from the 2016 Medical Expenditure Panel Survey-Insurance Component (MEPS-IC).

Estimates are reported by state grouped by Census region (Northeast, Midwest, South, and West) and represent the percentages of enrollees in single and family coverage that have premiums at the national 90th percentile amount or higher. It should be noted that factors other than state of residence can affect premiums. Other factors include benefit packages that are more or less generous (through the absence or presence of deductibles and co-pays, for example), employer characteristics (such as firm size and industry), and demographic factors (such as age and health of enrollees). All estimates of the percentages of enrollees with high premiums that are discussed in the text are significantly different from 10 percent at the 0.05 level unless otherwise noted.

Findings

Figure 1 shows all states in 2016 where the percentage of enrollees in high-premium single-coverage plans ($8,500 or more) exceeded 10 percent. Of the five states shown, two—New Jersey (15.2 percent) and New Hampshire (18.3 percent)—were located in the Northeast. The remaining three states were located in the South (West Virginia, 17.2 percent) and West (Alaska, 35.6 percent and Wyoming, 20.6 percent).

Figure 2 shows all states where the percentage of enrollees in high-premium single-coverage plans was under 10 percent. The percentages ranged from 6.5 percent in South Dakota to 4.7 percent in Arkansas. Of the nine states listed, none were in the Northeast. In addition to Arkansas, five states were in the South (Alabama, 5.4 percent; Mississippi, 6.3 percent; North Carolina, 6.0 percent; South Carolina, 6.4 percent; and Tennessee, 5.4 percent). One state, South Dakota, was located in the Midwest. Two states were located in the West (Hawaii, 5.9 percent and Oregon, 5.7 percent).

Figure 3 shows the six states where more than 10 percent of private-sector family enrollees were in high-premium plans ($24,000 or more). Three states were located in the Northeast (New Hampshire, 22.2 percent; New Jersey, 14.9 percent; and New York, 15.9 percent). One was located in the South (the District of Columbia, 16.0 percent) and two states were located in the West (Alaska, 36.0 percent; and Wyoming, 20.2 percent).

Figure 4 shows the states where the percentage of private-sector family enrollees with high premiums was under 10 percent. One was located in the Northeast (Pennsylvania, 6.4 percent). Two states were located in the South (Alabama, 4.5 percent; and Kentucky, 5.6 percent). Three states were located in the Midwest (Minnesota, 5.5 percent; Missouri, 3.6 percent; and North Dakota, 3.4 percent) and three states were located in the West (Colorado, 3.5 percent; Hawaii, 2.6 percent; and Oregon, 5.3 percent).

Data Source

This Statistical Brief summarizes data from the 2016 MEPS-IC. The data are available on the MEPS Web site at https://meps.ahrq.gov/mepsweb/survey_comp/Insurance.jsp or have been produced using special computation runs on the confidential MEPS-IC data available at the U.S. Census Bureau.

Definitions

Health insurance plan
An insurance contract that provides hospital and/or physician coverage to an employee for an agreed-upon fee (premium) for a defined benefit period.

Premium
Agreed-upon fee paid for coverage of medical benefits for a defined benefit period, usually a calendar year. Premiums can vary based on a variety of factors, such as services covered, amounts of deductibles and co-pays, location of firm, and demographics of the workforce.

Single coverage
Health insurance that covers the employee only.

Family coverage
Health insurance that covers the employee and the employee's family. If a plan offered more than one pricing level for family coverage, information for a family of four was reported.

State postal abbreviations
Alabama, AL
Alaska, AK
Arizona, AZ
Arkansas, AR
California, CA
Colorado, CO
Connecticut, CT
Delaware, DE
Florida, FL
Georgia, GA
Hawaii, HI
Idaho, ID
Illinois, IL
Indiana, IN
Iowa, IA
Kansas, KS
Kentucky, KY
Louisiana, LA
Maine, ME
Maryland, MD
Massachusetts, MA
Michigan, MI
Minnesota, MN
Mississippi, MS
Missouri, MO
Montana, MT
Nebraska, NE
Nevada, NV
New Hampshire, NH
New Jersey, NJ
New Mexico, NM
New York, NY
North Carolina, NC
North Dakota, ND
Ohio, OH
Oklahoma, OK
Oregon, OR
Pennsylvania, PA
Rhode Island, RI
South Carolina, SC
South Dakota, SD
Tennessee, TN
Texas, TX
Utah, UT
Vermont, VT
Virginia, VA
Washington, WA
West Virginia, WV
Wisconsin, WI
Wyoming, WY

Census regions
The U.S. Department of Commerce, Bureau of the Census, groups states into four regions and nine divisions:

Northeast Region
New England Division: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
Middle Atlantic Division: New Jersey, New York, and Pennsylvania

Midwest Region
East North Central Division: Illinois, Indiana, Michigan, Ohio, and Wisconsin
West North Central Division: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota

South Region
South Atlantic Division: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia
East South Central Division: Alabama, Kentucky, Mississippi, and Tennessee
West South Central Division: Arkansas, Louisiana, Oklahoma, and Texas

West Region
Mountain Division: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming
Pacific Division: Alaska, California, Hawaii, Oregon, and Washington

About MEPS-IC

MEPS-IC is a survey of business establishments and governments that collects information on employer-sponsored health insurance, such as whether insurance is offered, enrollments, types of plans, and premiums. The survey is conducted annually by the U.S. Census Bureau under the sponsorship of the Agency for Healthcare Research and Quality. A total sample of approximately 42,000 private-sector establishments was selected for the 2016 survey, with 5.5 percent of the sample determined to be out-of-scope during the data collection process. The response rate for the private sector was 67.6 percent of the remaining in-scope sample units.

For more information on this survey, see MEPS Methodology Reports 6, 8, 10, 14, 17, 18, 27, 28, 30, and 31 on the MEPS Web site at https://meps.ahrq.gov/mepsweb/data_stats/Pub_ProdLookup_Results.jsp? ProductType=Methodology%20Report&Comp=Insurance and Insurance Component Survey Basics at https://meps.ahrq.gov/mepsweb/survey_comp/Insurance.jsp.

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* * *

AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools and to share suggestions on how MEPS products might be enhanced to further meet your needs. Please email us at MEPSProjectDirector@ahrq.hhs.gov or send a letter to the address below:

Joel W. Cohen, PhD, Director
Center for Financing, Access, and Cost Trends
Agency for Healthcare Research and Quality
5600 Fishers Lane, Mail Stop 07W41A
Rockville, MD 20857

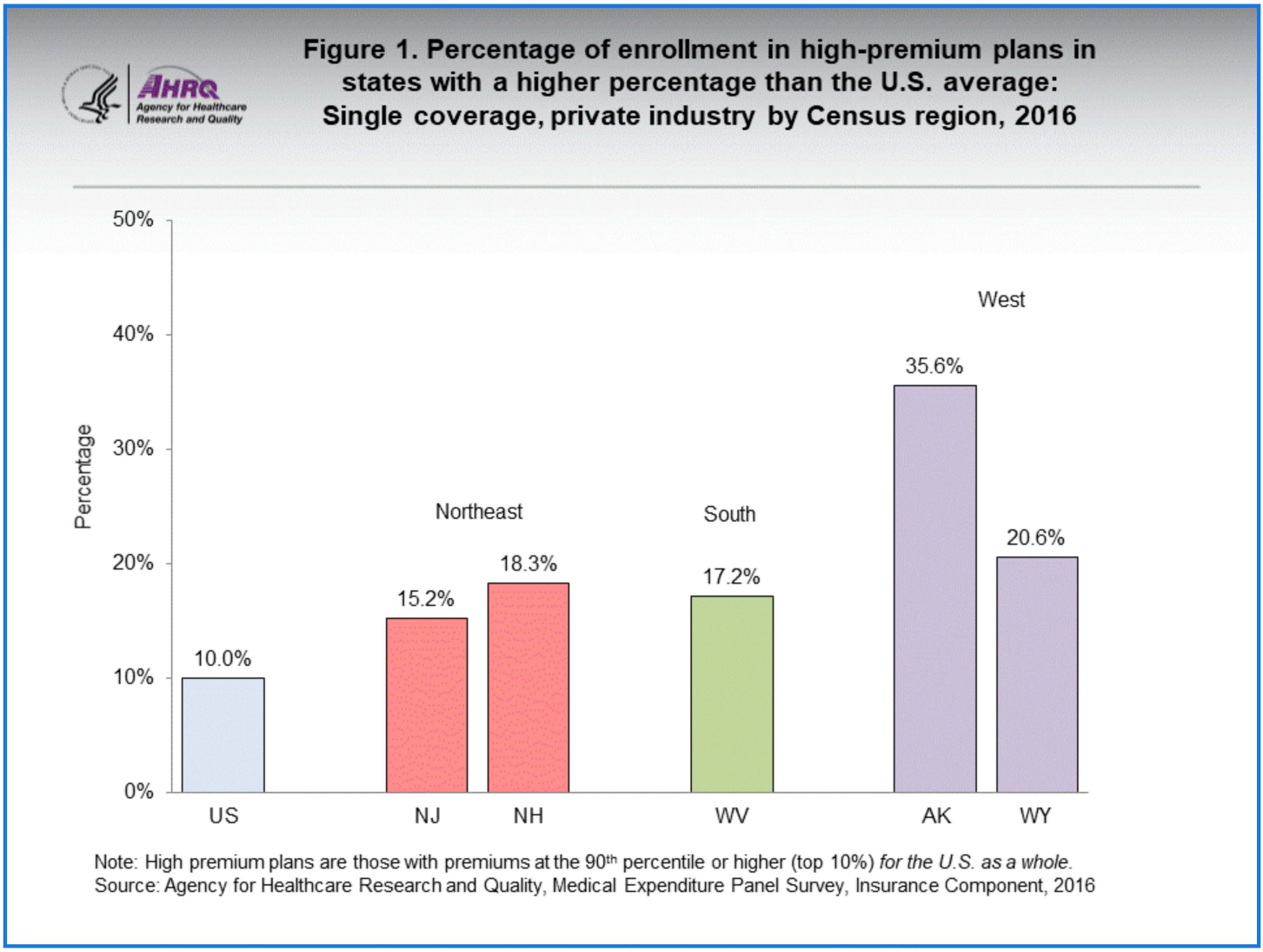

Figure 1. Percentage of enrollment in high-premium plans in states with a higher percentage than the U.S. average: Single coverage, private industry by Census region, 2016

Census region	States	2016

Census region	States	2016
USA	US	10.0%
Northeast	NJ	15.2%
	NH	18.3%
South	WV	17.2%
West	AK	35.6%
	WY	20.6%

Note: High premium plans are those with premiums at the 90th percentile or higher (top 10%) *for the U.S. as a whole*.
Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Insurance Component, 2016

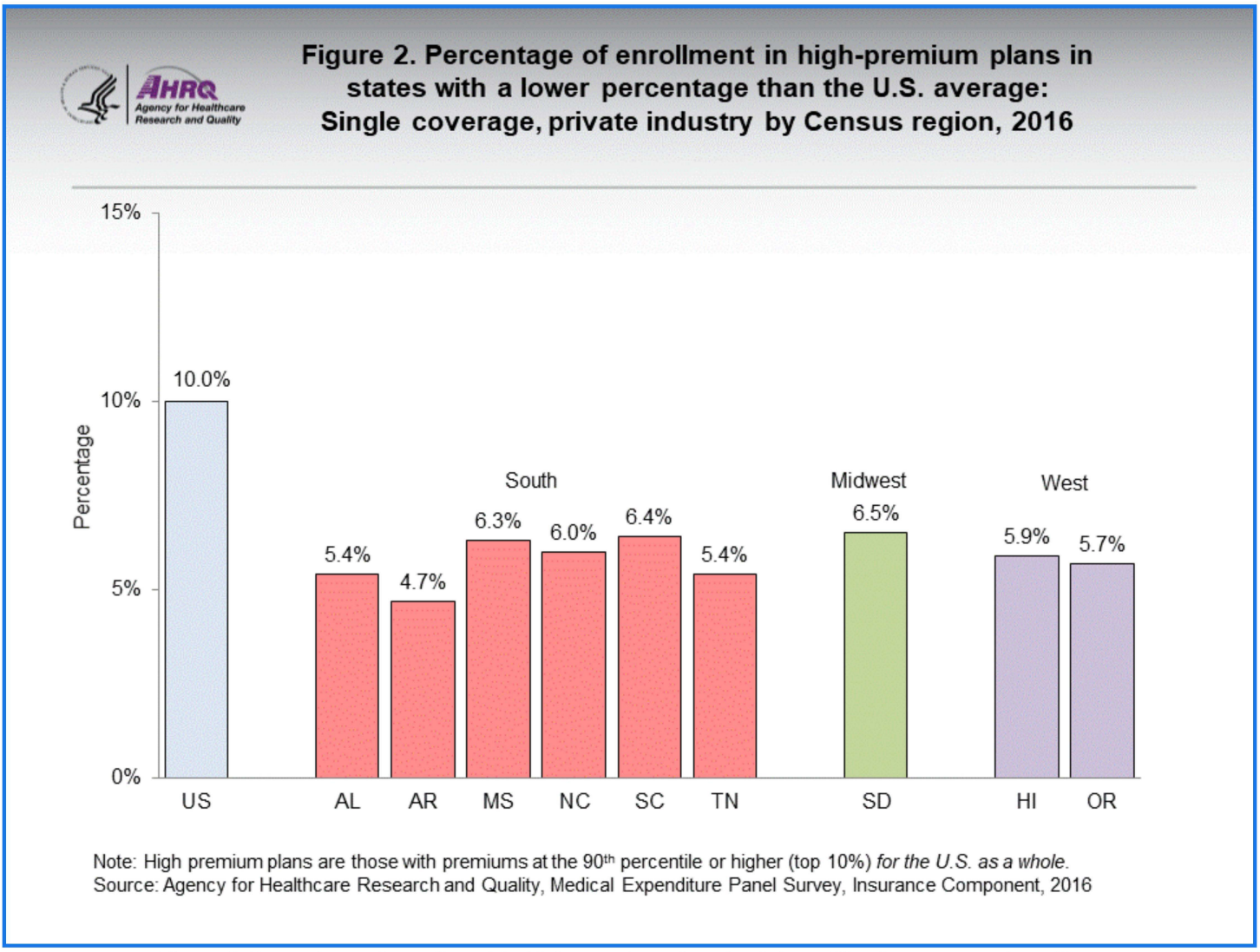

Figure 2. Percentage of enrollment in high-premium plans in states with a lower percentage than the U.S. average: Single coverage, private industry by Census region, 2016

Census region	States	2016
USA	US	10.0%
South	AL	5.4%
	AR	4.7%
	MS	6.3%
	NC	6.0%
	SC	6.4%
	TN	5.4%
Midwest	SD	6.5%
West	HI	5.9%

Census region	States	2016
	OR	5.7%

Note: High premium plans are those with premiums at the 90th percentile or higher (top 10%) *for the U.S. as a whole*.
Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Insurance Component, 2016

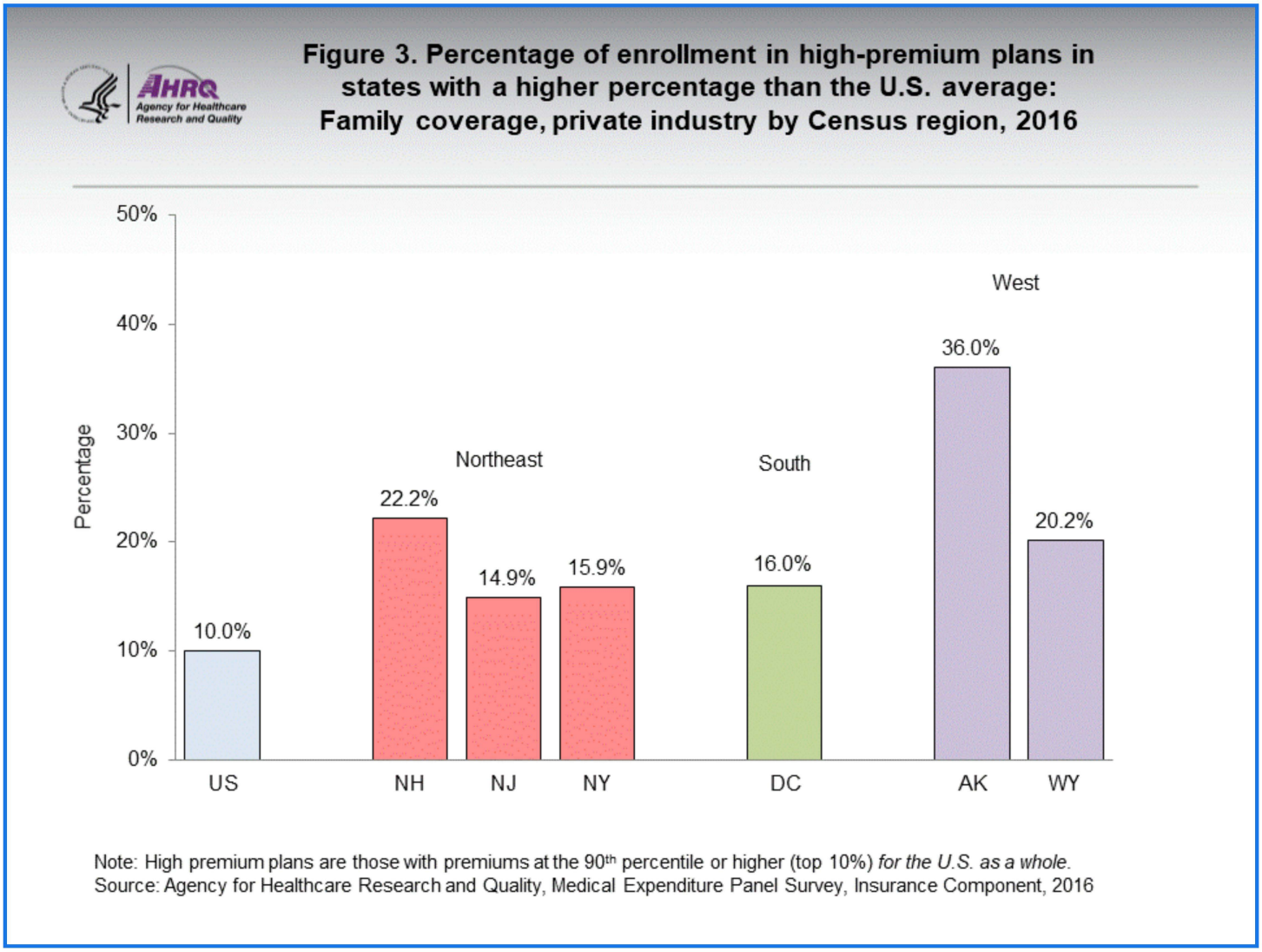

Figure 3. Percentage of enrollment in high-premium plans in states with a higher percentage than the U.S. average: Family coverage, private industry by Census region, 2016

Census region	States	2016
USA	US	10.0%
Northeast	NH	22.2%
	NJ	14.9%
	NY	15.9%
South	DC	16.0%
West	AK	36.0%
	WY	20.2%

Note: High premium plans are those with premiums at the 90th percentile or higher (top 10%) *for the U.S. as a whole*.
Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Insurance Component, 2016

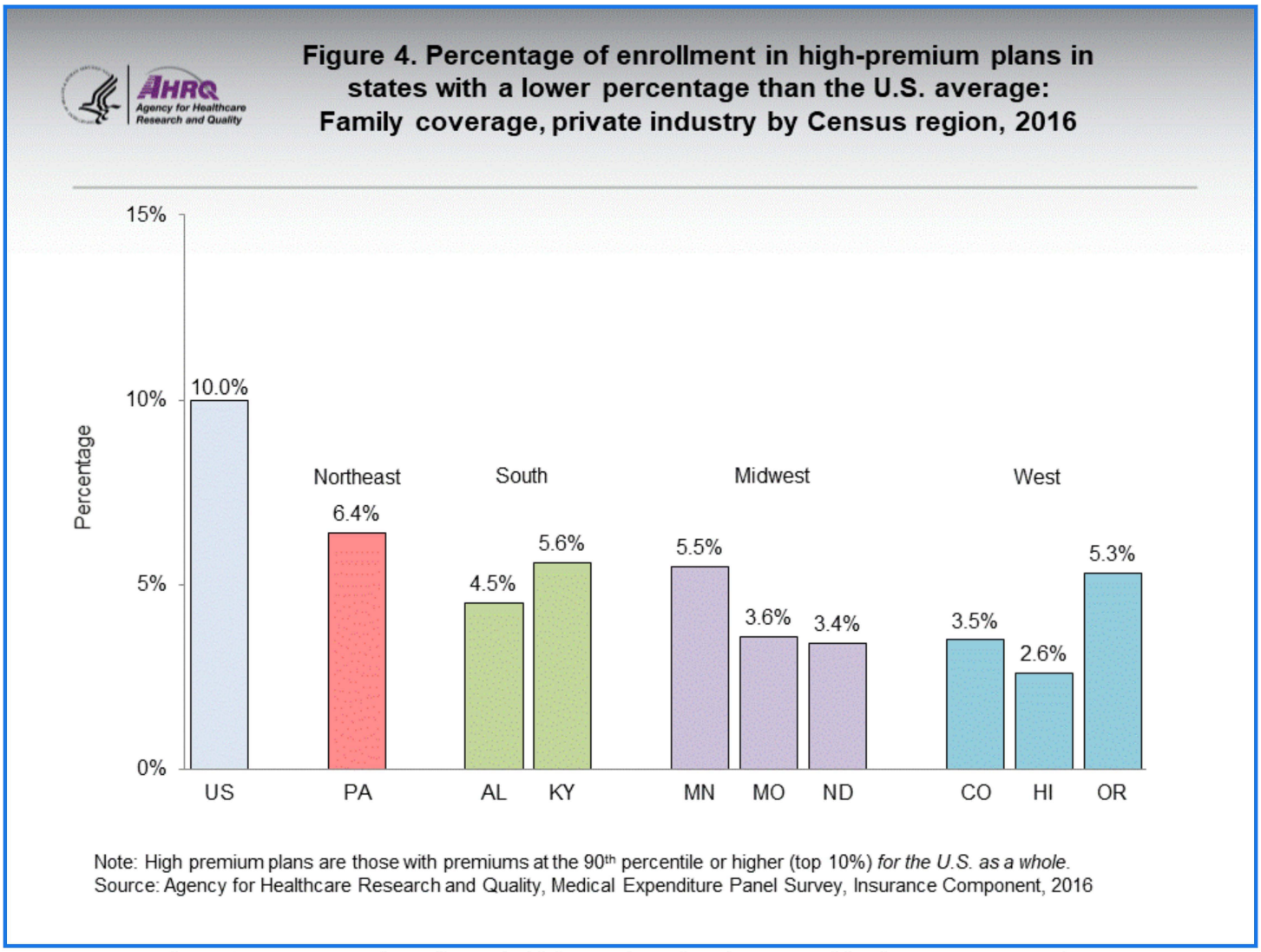

Figure 4. Percentage of enrollment in high-premium plans in states with a lower percentage than the U.S. average: Family coverage, private industry by Census region, 2016

Census region	States	2016
USA	**US**	10.0%
Northeast	**PA**	6.4%
South	**AL**	4.5%
	KY	5.6%
Midwest	**MN**	5.5%
	MO	3.6%
	ND	3.4%
West	**CO**	3.5%
	HI	2.6%
	OR	5.3%

Note: High premium plans are those with premiums at the 90th percentile or higher (top 10%) *for the U.S. as a whole*.
Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Insurance Component, 2016

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