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State Health Reform Assistance Network
Charting the Road to Coverage

ISSUE BRIEF
September 2015

Building on Year One 1095-A Form Success: Marketplaces' Recommendations for Future Tax Seasons

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Introduction

Beginning with tax year 2014, all health insurance marketplaces—the federally-facilitated and state-based alike—were newly required to report information about Qualified Health Plan (QHP) enrollment to all enrollees through Form 1095-A,[1] which was developed by the Internal Revenue Service (IRS) and used by enrollees to fill out new tax forms. While some feared that the new challenges associated with generating, distributing, and using the 1095-A form would evoke memories of the Affordable Care Act's (ACA) difficult first open enrollment period, the state-based marketplaces (SBMs) and federally-facilitated marketplace (FFM) primarily executed their reporting requirements to enrollees successfully, providing most forms in a timely manner and working effectively to tackle and resolve challenges that arose, such as the need to provide corrected forms and strong consumer assistance. The IRS also helped to ensure this first tax season went relatively smoothly by providing consumers flexibility in filing their tax returns as challenges arose, permitting consumers not to refile with late corrected forms, and encouraging consumers to request tax filing extensions. However, over time, as people become more accustomed to the ACA-related tax filing implications, the IRS is likely to provide less flexibility and have higher expectations of consumers. In total, the IRS estimates that the FFM and SBMs distributed 4.8 million 1095-As, covering some 7.5 million individuals.[2]

Manatt Health Solutions, through the support of the Robert Wood Johnson Foundation's (RWJF) *State Health Reform Assistance Network*, facilitated a workgroup of SBMs leading up to and during the 2014 tax season to enable state discussion on implementation challenges and solutions. Based on those workgroup meetings and follow-up interviews with marketplace officials in California, Colorado, the District of Columbia, Kentucky, and New York, this brief examines the practical strategies learned this year to ease implementation of 1095-A forms in the future. These lessons are not only applicable across marketplaces, but also to the insurance carriers, government agencies, and employers facing new ACA tax reporting requirements for tax year 2015 for enforcing the individual shared responsibility requirement and large employer responsibility requirement. These entities will be responsible for generating Forms 1095-B[3] and 1095-C[4] beginning in future tax seasons.

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Marketplaces' "lessons learned" and recommendations addressed five key areas:

- Ensuring data integrity and reconciliation between carriers and marketplaces

- Generating and distributing Form 1095-A

- Tackling errors and the correction process

- Providing consumer assistance

- Establishing partnerships with federal agencies

Ensuring data integrity and reconciliation between carriers and states

The 1095-A forms are used in the process of claiming and reconciling the premium tax credit, which had an average value of $3,400 in 2014,[8] making it critical that the forms accurately reflected marketplace enrollees' coverage status and tax credits received or owed. To ensure the integrity of the data provided on their forms, all marketplaces engaged in a data integrity reconciliation process with QHP carriers to verify that the data in their system—which would be used to populate the 1095-A form—matched the data in the carriers' systems. Most marketplaces relied on carriers for this data because carriers collect enrollees' premiums and are therefore responsible for providing timely and accurate information to the marketplace.[9] All states reported the need for an extensive data exchange and quality assurance process with carriers and have continued cleaning the 2014 data well into 2015, such that the two coverage year data integrity efforts are now overlapping. States will be addressing tax season 2014 errors and corrections at least through October 2015, the six-month extended deadline that the IRS generally provides to anyone who files for an extension. This year, the IRS encouraged marketplace enrollees impacted by incorrect 1095-A forms to file for this extension.

Marketplace officials noted their greatest discrepancy with carriers' data was due to not having received an effectuation, termination, or cancellation transaction from the carrier, leading to the systems showing different coverage start and end dates or enrollment status. Since premium tax credits are based in part on the number of months for which someone is enrolled in a qualified health plan, the start and end dates of coverage can directly affect the size of someone's credit. Interviewees also acknowledged that this year's data was impacted by the technical challenges encountered as they and carriers launched the marketplaces for the first time, and that they anticipated fewer data discrepancies in future years. Marketplaces and carriers plan to conduct reconciliation more proactively throughout future years to help mitigate the need for extensive cleaning directly prior to the production of the 1095-A forms.

> In addition to reporting enrollment and premium tax credit information to enrollees, marketplaces were also required to report this information to the IRS. This brief does not address marketplace performance in meeting the IRS reporting requirements, and instead focuses on their reporting to and communication with enrollees. Marketplaces' reporting to the IRS has been preliminarily evaluated by a number of federal agencies.[5,6,7]
>
> The state marketplaces that actively participated in RWJF's *State Health Reform Assistance Network* workgroup and those interviewed for this brief were highly functional and engaged early in planning for and executing 1095-A requirements. They were selected as key leaders to offer insights based on their experiences.

STATES HAD THE FOLLOWING RECOMMENDATIONS REGARDING DATA INTEGRITY RECONCILIATION:

- Establish an ongoing, proactive strategy for checking data integrity. Conduct reconciliation with carriers:

  (1) On an ongoing basis throughout the year;

  (2) In an extensive effort well in advance of generating and distributing the forms; and

  (3) Throughout the tax season, after original 1095-A forms have been distributed.

- Plan to continue reconciliation with carriers beyond the end of the tax season as needed; and

- Prepare for insurance carriers to be occupied with their new reporting obligations under the ACA in tax year 2015. A number of marketplaces noted that carriers will be newly implementing Form 1095-B and may have a more limited capacity to work with marketplaces on 1095-A forms. Given the time-intensive nature of the reconciliation process, it may be particularly important in the months ahead to tackle data reconciliation well in advance of the tax season.

Generating and distributing Form 1095-A

Marketplaces were required to generate and distribute a high volume—from tens of thousands in D.C. to almost 1 million in California—1095-A forms by the end of January 2015. Many states conducted system tests and developed small batches of forms to confirm the right information was coded to appear in the correct location on the form. One marketplace in particular highlighted the importance of testing and communicating with the IRS, which permitted this marketplace, while adhering to the law, to use a slightly modified version of a specific data element to accommodate how its system was built.

All states highlighted the need to prepare early for such a large mailing; two states noted that due to the size of the mailing, the cover letter they included with the form had to be finalized well ahead of the mailing dates. Marketplace officials agreed, however, that the cover letter was an important tool for ensuring consumers understood upon receipt what the 1095-A form was and how to use it. Most marketplaces both mailed the form to a physical address and posted a PDF version online in an individual's account (or through a separate login, like D.C. did, as described to the right). Interviewees reported that posting the PDF in addition to mailing the form was an effective strategy for distribution of the form. One state that only posted the PDF form (and did not mail it) for enrollees who had requested to only receive electronic communications plans to both post and mail versions to everyone in subsequent years due to the numerous requests they received for hard copies of the form.[10] Many states noted that a high volume of returned mail hampered their efforts to reach enrollees efficiently; California instituted a manual process to call consumers and request an updated mailing address.

D.C.'s marketplace wished to make enrollees' 1095-A forms accessible online, but was concerned that posting the form in enrollees' accounts would lead to a high volume of consumer assistance requests from individuals who had created multiple accounts, or those who had forgotten passwords. To permit consumers to access the online forms without requiring them to log in to their original marketplace account, D.C. developed a simplified approach. It established a separate page on its website that required enrollees to enter only their first and last names, Social Security Number, and date of birth. With just that information, the enrollee was able to access and download their original and (if applicable) corrected 1095-A forms. The technology team was able to leverage their database of consumer documents and developed this portal quickly and efficiently, launching it in early February of 2015. Most calls for consumer assistance that came in subsequently could be resolved by directing people to the document portal.

STATES HAD THE FOLLOWING RECOMMENDATIONS REGARDING GENERATING AND DISTRIBUTING FORM 1095-A:

- Conduct extensive testing on the production of Form 1095-A, develop batch tests, and reach out to contacts at the IRS as needed;

- Plan well in advance for a massive mailing effort, including finalizing cover letter language early and cleaning physical addresses on file—throughout the year and in advance of the mailing;

- Institute a process, as automated as feasible, for correcting addresses on returned mail and resending to the updated addresses; and

- To reduce consumer requests for duplicate copies of 1095-As, provide access to forms through the mail and online; consider leveraging existing resources to establish a secure portal for providing consumers with electronic copies of their form.

Tackling errors and the correction process

In the first ACA-impacted tax season, marketplaces were responsible for implementing an entirely new form and sending it to a large number of taxpayers, making it not surprising that errors arose. In the event an error was identified on a form already generated and sent to an enrollee, marketplaces were required to issue corrected 1095-A forms, similar to how employers must send a corrected W-2 to employees if an error is identified. Marketplaces sent some corrected forms in response to errors identified by enrollees who disagreed with information on the form they received, but, more commonly, corrected forms were sent because the marketplace received updated enrollment information from carriers after the 1095-A form had been sent to a recipient. Marketplaces also sometimes identified systematic errors produced by their IT systems, such as the FFM's use of an incorrect benchmark plan variable for a share of its 1095-A recipients.

The most common reasons a 1095-A form would need to be revised, identified either by enrollees or through an updated data exchange with carriers, included:

- **Coverage effective dates.** All states identified errors associated with the start date, termination date, and number of months (or which months) covered as the greatest driver of corrected forms.

  - **Termination date, due to non-payment during grace period.** Marketplaces noted that enrollees who were in a "grace period" for non-payment of their premiums[11] at the end of the year and were retroactively terminated triggered the need to send a corrected form.

- **Canceled policies.** Most marketplace interviewees noted that some recipients of the 1095-A forms called the marketplace claiming to have never been enrolled in coverage. These individuals may have been determined eligible by the marketplace and selected a plan, but either never effectuated enrollment by paying a premium, or canceled the plan before it began. If the marketplace received an enrollment transaction but no subsequent cancelation transaction from the carrier, and therefore generated a Form 1095-A erroneously, it would be required to send a "voided" 1095-A form to these enrollees. The IRS had not developed specifications for a voided 1095-A form before the tax season began, but provided instructions once this issue was uncovered.

- **Incorrect advanced premium tax credit (APTC) information.** Several states noted that levels of advanced premium tax credits, or the months for which APTC was received, were incorrect on some forms.

States instituted various methods for accepting enrollees' requested corrections, though most states required people to either submit a paper form or to call the marketplace's call center. Several marketplaces expressed interest in creating a more "consumer-friendly" process for requesting corrections, including developing an online submission form. Marketplaces found it vital to establish clear processes for making the correction, including who could determine that a correction should be made.

Most marketplaces were reliant on their carriers to review and validate requested corrections, and one marketplace, under certain circumstances, required the carrier to send documentation to the individual, who then had to forward it to the marketplace to supplement their correction request. Generally, marketplaces worked in tandem with and relied heavily on carriers as part of the correction process. It behooved states to delineate clear responsibilities regarding which entity's data would be used to address a consumer's requested correction and how to share information or documentation when needed.

STATES' RECOMMENDATIONS REGARDING ERRORS AND THE CORRECTION PROCESS INCLUDE:

- Begin planning for the correction process as early as possible, considering staff and IT infrastructure required to accept corrections, verify information with carriers, approve a correction, and produce a corrected form in as timely a manner as possible;

- Build close relationships with carriers and establish a defined hierarchy for marketplace and carrier data, and a clear process between the two entities to resolve discrepancies;

- Permit enrollees to submit corrections through a variety of means, including an online form; and

- Set up a real-time system to document and analyze requests for corrections during the tax season, allowing the marketplace to identify trends in required corrections and any systemic errors that could inform future efforts to ensure data integrity (e.g., improvements to 834 transactions and reconciliation with carriers).

Providing consumer assistance

Because 2014 was the first year of marketplace coverage, officials anticipated extensive consumer confusion for the first tax season and a high need for consumer education. Particularly problematic in early 2015 was the overlap between the end of the 2015 open enrollment period (which concluded on February 15, 2015), marketplaces' distribution of the 1095-A form (approximately end of January), and a standard peak in the tax filing season when many people tend to submit their tax returns (mid-February). This confluence of factors created a period of uniquely high need for consumer assistance to address both open enrollment and tax filing questions simultaneously. For the upcoming tax season, this confusion will be reduced because the 2016 open enrollment period ends on January 31, 2016. While there may be some overlap between the last push to enroll in the marketplace and the distribution of the 1095-A forms, open enrollment will be over by the time there is a peak in tax filing.

To account for the anticipated confusion, marketplaces prepared various types of consumer assistance, including sending a cover letter with consumer-friendly instructions on how to use the 1095-A and where to call with questions; training of navigators and assisters; engagement with the nation's tax preparers and software companies; and, in particular, heavy reliance on their call centers.

Most marketplaces trained a dedicated subset of call center representatives and some set up a separate phone number specifically for 1095-A questions. Marketplaces also reported training all of their call center staff on 1095-A issues so that only the more complex questions were escalated to the highest-trained staff. California, Colorado, and D.C. indicated that between 10 percent and 15 percent of form recipients called for assistance. Some marketplace officials reported their surprise that they did not receive a greater volume of 1095-A-related calls from consumers. Among the calls that were received, marketplaces were able to reduce consumer frustration and requests for corrections by using their call center staff to educate consumers, walk them through the forms, and answer their questions.

Marketplace officials reported that many individuals called in asking general questions (such as, "what is this form and why did I receive it?") and that consumers expressed confusion on two additional specific topics: the accuracy of the monthly premiums[12] and the need to fill in benchmark plan information.[13]

> **STATES RECOMMENDED THE FOLLOWING STRATEGIES TO PROVIDE CONSUMER ASSISTANCE THROUGH CALL CENTERS:**
>
> - Train a dedicated unit within the call center to assist consumers with more complicated 1095-A questions, but educate all representatives so basic questions can be answered by any representative;
>
> - Increase staffing in anticipation of a higher volume of calls, particularly as the 1095-A forms are distributed and at peak tax filing times. Despite the fact that some marketplaces saw lower-than-anticipated calls this year, many project increased confusion next year due to the addition of 1095-B and 1095-C forms;
>
> - Track the volume of calls specific to 1095-A forms and review call logs to identify common sources of confusion or error. Use this information to update training materials and for communication with carriers; and
>
> - Provide a simple, online "benchmark plan look-up tool" that enables enrollees who must fill in their benchmark plan information to access it easily.

In addition to utilizing their call centers, marketplaces adopted an affirmative approach to managing consumer questions and confusion about the 1095-A form, relying on a diverse mixture of strategies that they credit with reducing the volume of 1095-A calls to the call centers.

STATES RECOMMENDED THESE KEY CONSUMER ASSISTANCE STRATEGIES:

- **Send "Watch the Mail" and "Alert" notifications.** Prior to distributing the form, some marketplaces sent letters or emails that introduced enrollees to the 1095-A form, advised them to be on the look-out for the form, and urged them to save the form with their other important tax documents.

- **Develop Frequently Asked Questions (FAQs).** Many, if not all, states provided an FAQ document that walked consumers through potential areas of confusion. One state, in particular, believed that their extensive FAQ was invaluable in providing consumers with the information they needed.

- **Dedicate a page online to 1095-As.** Several states commented that their marketplaces' robust and singularly-focused online "tax page" was well-received.

- **Outreach to and training for the tax preparation community.** Some marketplace officials identified tax preparation software companies and tax preparers active in their state as key partners. Some marketplaces worked more extensively with this community during this year's tax season, while others intend to do so for future tax seasons.

  • Marketplace officials reported that they wished to build on their success with engaging the large tax preparers by conducting further outreach to smaller tax preparation companies in particular. Officials encouraged the IRS to leverage their communication infrastructure and relationships with the tax preparer community to conduct further trainings and outreach.

  • Marketplace officials noted the importance of keeping the lines of communication open before and during the tax season with the tax preparation community. Marketplaces were able to identify and tackle emerging issues, such as some tax preparers inadvertently asking Medicaid or Small Business Health Options Program (SHOP) marketplace enrollees to produce 1095-A forms. This confusion may have arisen in particular for these beneficiaries if they replied affirmatively when asked if they enrolled "through the marketplace."

  • Colorado benefitted from certifying tax preparers as enrollment brokers and is considering developing a "toolkit" to arm preparers with all the information that they or their customers might need regarding the marketplace's 1095-A policies.

  • Finally, in the future, states may wish to leverage or advertise other ACA-related resources available in the public domain geared to tax preparers. The Center on Budget and Policy Priorities, for example, developed an "Affordable Care Act Survival Kit," which remains available on the organization's website, and conducted a series of well-attended webinars to help Volunteer Income Tax Assistance and Tax Counseling for the Elderly volunteers understand the ACA-related tax provisions.

States also instituted a variety of other strategies to prepare for and address consumers' questions:

- **Training all consumer assisters and stakeholders.** States conducted a variety of trainings for multiple audiences, including internal staff, navigators, in-person assisters, brokers, health plans, and tax preparers. Marketplaces received feedback that these trainings were very informative and many plan to facilitate similar training sessions and webinars in future years.

- **Including a cover letter with the 1095-A form.** Most states included a cover letter to describe what the 1095-A form was and how to use it; some states provided the cover letter in multiple languages, either as part of the mailing or online. Several states indicated they will update their cover letters for next year with more specificity.

- **Engaging on social media.** One marketplace official noted that consumers had begun asking where to find their 1095-A forms on the marketplace's Facebook page prior to distribution, so officials began posting updates and explanations on Facebook.

Establishing partnerships with federal agencies

In addition to providing a 1095-A form to enrollees, marketplaces were required to report enrollment information through monthly and annual data transfers primarily to the IRS, though secondarily as well to the Centers for Medicare and Medicaid Services (CMS). To prepare states for the reporting requirements and to address new issues as they arose, the IRS policy and technical teams together conducted bi-weekly workshops with SBMs. Interviewees reported that these workshops were very informative and, across the board, praised the IRS staff for their timely responses to questions and their flexibility to develop workarounds and solutions to problems. While states had much less need to interact with CMS during the tax season, states also indicated that CMS was available as necessary, and, for California, reviewed consumer notices to provide constructive feedback. States identified the following areas where improvements could benefit states' planning and processes:

- **Communicating changes in IRS policy that directly affect marketplace enrollees.** Marketplace officials pointed out that the IRS made a number of changes during the tax filing season aimed at ensuring the season went relatively smoothly despite the challenges associated with implementing the 1095-A requirements for the first time. These included eventually giving consumers the flexibility to decide whether to refile their taxes after receiving corrected forms. While the agency's nimble approach was credited with easing the tax filing system and year one challenges, it also increased the importance of timely, clear communication between marketplaces and the IRS. While this timely and clear communication will be important in future years, over time, as people become more accustomed to the ACA-related tax filing implications, the IRS is likely to provide less flexibility and have higher expectations. Marketplaces, other entities creating 1095 forms, and tax filers may wish to assume deadlines and requirements will remain more rigid in the future.

- **Providing clarity on outstanding areas of uncertainty.** Marketplace officials noted that despite efforts to communicate throughout the tax season, there were areas of confusion that remained, regarding both the conclusion of the 2014 tax season and looking ahead to next year's requirements. For example, one state was interested in receiving clarification on outstanding issues related to SHOP marketplaces that the IRS had not yet addressed.

- **Aligning technical reporting requirements across agencies.** States expressed concern regarding the differing reporting requirements used by the IRS and CMS, noting that transmissions were, at times, accepted by one agency but rejected by the other. Aligning the requirements between the two agencies would enable states to more efficiently prepare one transaction for both agencies.

- **Greater accessibility to IRS notices and procedures.** Some enrollees sought assistance from marketplace call centers when the IRS could not process their tax returns, but marketplace officials were unable to identify any reason associated with the 1095-A for the issue. States wanted to better understand what barriers were preventing the tax returns from being processed and wished to be in communication with the IRS in order to provide assistance either directly to the consumer or to the IRS. Though the IRS makes its consumer notices available on its website, many states were not made aware of this resource and felt it would be valuable to see advanced copies of notices sent to tax filers regarding their 1095-As, as well as to receive updates from the IRS on planned correspondence with tax filers that might trigger calls to the marketplace call center.

STATES OUTLINED THE FOLLOWING REQUESTS AND RECOMMENDATIONS OF THE IRS AND/OR CMS TO STRENGTHEN THEIR RELATIONSHIPS AND CLARIFY OUTSTANDING QUESTIONS:

- IRS and CMS:
  - Provide timely, clear, written communication of changes in policy or processes during the tax season;
  - Jointly update, and provide in consolidated written guidance, all policy and technical requirements that were developed and communicated during the 2014 tax season; and
  - Align technical reporting requirements to enable efficient state data transfers.
- IRS:
  - Provide marketplaces with copies of the consumer communications sent to 1095-A form recipients;
  - Dedicate additional resources, and possibly a phone line, to consumers with 1095 forms and/or marketplace consumer assistance representatives.

Implications for future tax seasons

The roll out of 1095-As was another "first ever" challenge for marketplaces and, in the process, they identified important lessons and opportunities that can assist marketplaces in the future, as well as the issuers, state and federal agencies, employers, and others now charged with issuing the new IRS forms needed to administer the individual shared responsibility requirement and the large employer responsibility requirement. For those newly charged with distributing ACA reporting forms, key lessons applicable to all 1095 reporting requirements include the following:

- **Prepare as early as possible.** It is critical to allow significant time to test the technology needed to submit the forms, the integrity of the data and communications strategies, and to develop relationships with key partners.

- **Adopt a proactive strategy to check and verify data well in advance of when the forms must be sent.** Because the data will be used by the IRS to administer tax provisions, it is "high stakes" data that needs to be accurate and reliable. It is important to anticipate that some data that seems straightforward and easy to report may be more difficult than expected; for example, Medicaid agencies will need to establish which groups of beneficiaries receive minimum essential coverage (e.g., beneficiaries who receive a benefit package limited to family planning services do not meet these requirements).

- **Anticipate the need for a corrections process.** Especially in year one of implementation, there almost certainly will be errors in the initial forms, making it critical to have a well-developed process in place for identifying errors, alerting consumers when they occur; creating a mechanism by which consumers can seek corrections if necessary; resolving any disputes about the correct data to be used; and educating consumers about how to respond if they receive a corrected form.

- **Prepare for consumers' calls and questions.** While it is imperative to avoid giving out tax advice, marketplaces, issuers, and employers charged with submitting ACA tax reporting forms should anticipate that consumers will call them with questions. It is important to have a strategy for minimizing unnecessary questions, as well as for responding to those that need to be answered. Strategies can include taking proactive steps to reduce questions by sending cover letters with the forms that direct consumers how to use them and where to go for help; providing training to appropriate staff to quickly and easily answer the most simple questions that stop short of providing tax advice; and developing relationships with the tax preparation community and other services to whom a customer can be handed off when they require tax advice.

- **Prepare for the IRS adopting policy changes if critical to allow for a successful filing season.** As noted above, the IRS issued some guidance during the 2014 tax filing season aimed at easing filing requirements for consumers faced with changes in the data available on their 1095-A forms. To the extent that similar issues arise in the upcoming tax season, marketplaces and other entities responsible for developing a 1095 form should anticipate that they may again see timely, short-term shifts in IRS administration policy that may need to be communicated with consumers.

- **Establish a "best practices" network or other forum for sharing strategies.** In the marketplace context, the Robert Wood Johnson Foundation's *State Health Reform Assistance Network* served as one of few sources for SBMs to exchange notes, identify issues and possible responses, and even share training materials, cover letters, and other tools to ease implementation of the 1095-A reporting process.

- **Anticipate new challenges associated with consumers receiving multiple forms.** In the 2014 tax season, approximately 4.5 million households received 1095-A forms, but, in the upcoming season, estimates indicate that hundreds of millions of 1095 forms will be distributed and that many people will receive multiple forms. People may require additional assistance determining how to navigate multiple 1095 forms, such as if they were enrolled in both Medicare and Medicaid, if they switched from marketplace to Medicaid coverage over the course of a year, or if they and their employer differ as to whether the employer offered affordable coverage. To prepare, form issuers may wish to incorporate into their consumer education efforts a general discussion of why someone might receive multiple forms and where to go if they have detailed questions.

- **Special opportunities for Medicaid and Children's Health Insurance Program (CHIP) agencies.** Medicaid and CHIP agencies will face many of the same challenges as other form issuers, but, also some unique challenges and opportunities given the nature of Medicaid coverage. For example, the availability of retroactive eligibility for Medicaid in most states means that they can never fully avoid the need to send corrected forms (e.g., if someone who enrolls in Medicaid in January 2016 is found retroactively eligible for Medicaid in 2015, they will need to send a corrected form for tax year 2015 reflecting coverage in the last two months of 2015). Notably, however, some state Medicaid and CHIP agencies are

in a unique position to work closely with their marketplace. For example, they may already have call centers that serve both Medicaid/CHIP and marketplace enrollees, making it easier to coordinate education efforts and consumer assistance across the 1095-A and 1095-B forms. They may even have a single eligibility and enrollment system that could be used to simultaneously mail forms to families receiving both a 1095-A and a 1095-B, such as if the parents are enrolled in the marketplace and the children in Medicaid or CHIP.

Conclusion

While not without challenges, marketplaces were able to substantially fulfill their obligation to provide consumers with the data needed to receive and reconcile premium tax credits for the first time in the 2014 tax season. They succeeded using a range of practical strategies that emphasized educating consumers, preparing technically, anticipating issues, developing contingency plans, and working collaboratively to share promising practices and troubleshooting strategies. In the weeks and months ahead, these approaches may offer useful insights to the issuers, government agencies, employers, and others newly facing responsibilities to meet ACA tax reporting requirements.

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[1] The IRS used Form 1095-A to administer the ACA's premium tax credit in tax year 2014, and, in future years, it will use data from the form to administer the individual shared responsibility payment on behalf of marketplace enrollees. The federally-facilitated marketplace and each state-based marketplace must send a 1095-A to all marketplace beneficiaries enrolled in an individual QHP for which a premium tax credit might be available on or before January 31 of the following year. (Individuals with catastrophic plans and small employees enrolled in a Small Business Health Options Program (SHOP) plan do not receive a 1095-A.) The form contains key enrollment information, including information about the policyholder and plan members (name, address, date of birth, etc.), coverage start and end dates, monthly premium, issuer name, amount of monthly advanced premium tax credits (APTCs) (if applicable), and benchmark plan premium used to calculate APTC payments (if applicable). The information is needed by marketplace enrollees to claim the premium tax credit or, if someone received an advanced premium tax credit, to conduct reconciliation. They must use the information in Form 1095-A to fill out Tax Form 8962 and file it with their tax return. If an individual fails to file taxes and conduct reconciliation, it will result in his/her ineligibility for a tax credit in the year following.

[2] Internal Revenue Service Commissioner Letter to Congress, Released July 21, 2015. *http://www.irs.gov/pub/irs-utl/CommissionerLetterlwithcharts.pdf*. The number of individuals covered by the 4.8 million forms was assumed based on the author's estimate that 4.5 million 1095-A forms cover approximately 7 million individuals.

[3] Beginning with tax year 2015, issuers of minimum essential coverage are required to submit Form 1095-B to enrollees on or before January 31, 2016, with a copy to the IRS to allow the agency to oversee implementation of the individual shared responsibility requirement. The form will contain key enrollment information on the months in which individuals had coverage that meets "minimum essential coverage" standards. Major entities required to submit this form include insurance companies, government agencies, such as state Medicaid and Children's Health Insurance (CHIP) agencies, and some employers.

[4] Large employers (50 or more full-time employees) are required to submit a Form 1095-C to each employee and a related Form 1094-C with summary information on the employer to the IRS with data needed to administer the large employer responsibility requirement. The forms also may be used to determine the eligibility of individual employees for premium tax credits based on whether they have an offer of affordable employer-sponsored coverage meeting minimum value standards. The Form 1095-C will contain information on offers of coverage, the cost of offered coverage, and additional information needed by the IRS to assess whether an employer is subject to a penalty. For large employers that are self-insured, the form also contains a Part III that provides month-by-month information on an employee's and related household members' enrollment in coverage. For these employers, Part III of 1095-C replaces the obligation to submit the 1095-B data that otherwise would be needed to administer the individual shared responsibility requirement.

[5] Internal Revenue Service Commissioner Letter to Congress, Released July 21, 2015. *http://www.irs.gov/pub/irs-utl/CommissionerLetterlwithcharts.pdf*

[6] US Government Accountability Office. *Patient Protection and Affordable Care Act: IRS Needs to Strengthen Oversight of Tax Provisions for Individuals.* GOA Pub 15-540. Washington: US Gov Accountability Office; 2015. *http://www.gao.gov/products/GAO-15-540*

[7] Treasury Inspector General for Tax Administration. *Affordable Care Act: Interim Results of the Internal Revenue Service Verification of Premium Tax Credit Claims.* TIGTA Pub 2015-43-057. Washington: Treasury Inspector General for Tax Administration; 2015. *https://www.treasury.gov/tigta/auditreports/2015reports/201543057fr.html*

[8] Internal Revenue Service Commissioner Letter to Congress, Released July 21, 2015. *http://www.irs.gov/pub/irs-utl/CommissionerLetterlwithcharts.pdf*

[9] The Washington Health Benefit Exchange was responsible for collecting premiums during coverage years 2014 and 2015; however, after conducting a thorough analysis of its processes, the Exchange Board voted to remove the functionality from the system for coverage year 2016 and join most of their fellow SBMs and the FFM in relying on carriers to handle premium payments. *http://www.wahbexchange.org/washington-healthplanfinder-announces-premium-payment-change-for-customers/*

[10] If a form issuer wants to substitute electronic forms for a mailing, it must meet strict IRS rules, which among other conditions, requires that the beneficiary must affirmatively consent to receive it electronically. See 26 CFR 1.6055-2, 26 CFR 1.6056; 79 Fed. Reg. 13231 (March 2014), 79 Fed. Reg 13226 (March 2014).

[11] Recipients of APTCs receive a 90-day "grace period" for premium payment, during which time, if they do not pay their premiums, the law requires marketplace carriers to maintain coverage. If the enrollee does not pay their premiums by the end of the grace period, they are terminated retroactively to the end of the first month of the grace period. Marketplaces that do not collect premiums do not know when someone is in a grace period. Therefore, an APTC recipient in their grace period at the end of 2014 may appear covered at the time the marketplace generates the 1095-A form. Later, a carrier may send updated information to the marketplace indicating a retroactive termination, which would trigger the marketplace requirement to generate and send a corrected 1095-A form.

[12] The monthly premiums listed on Form 1095-A only incorporated the costs for essential health benefit (EHB) services. In states where qualified health plans offered other benefits in addition to EHBs, the premiums on enrollees' monthly bills may appear slightly higher than the premium reflected on Form 1095-A.

[13] Benchmark plan information was required on the form to enable the IRS to reconcile premium tax credits received with those owed at the end of the year. While marketplaces were required to fill in this information for APTC recipients, they were only required to make the information available for those paying full price for the QHP, to permit those individuals to fill in that information themselves.

THE PRICE OF RESPONSIBILITY:
THE IMPACT OF HEALTH REFORM ON NON-POOR UNINSUREDS

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The Price of Responsibility: The Impact of Health Reform on Non-Poor Uninsureds
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ABSTRACT

This paper estimates the change in net (of subsidy) financial burden ("the price of responsibility")
and in welfare that would be experienced by a large nationally representative sample of the "non-poor"
uninsured if they were to purchase Silver or Bronze plans on the ACA exchanges. The sample is the
set of full-year uninsured persons represented in the Current Population Survey for the pre-ACA period
with incomes above 138 percent of the federal poverty level. The estimated change in financial burden
compares out-of-pocket payments by income stratum in the pre-ACA period with the sum of premiums
(net of subsidy) and expected cost sharing (net of subsidy) for benchmark Silver and Bronze plans,
under various assumptions about the extent of increased spending associated with obtaining coverage.
In addition to changes in the financial burden, our welfare estimates incorporate the value of additional
care consumed and the change in risk premiums for changes in exposure to out-of-pocket payments
associated with coverage, under various assumptions about risk aversion. We find that the average
financial burden will increase for all income levels once insured. Subsidy-eligible persons with incomes
below 250 percent of the poverty threshold likely experience welfare improvements that offset the
higher financial burden, depending on assumptions about risk aversion and the value of additional
consumption of medical care. However, even under the most optimistic assumptions, close to half
of the formerly uninsured (especially those with higher incomes) experience both higher financial
burden and lower estimated welfare; indicating a positive "price of responsibility" for complying with
the individual mandate. The percentage of the sample with estimated welfare increases is close to
matching observed take-up rates by the previously uninsured in the exchanges.

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I. INTRODUCTION

A major objective of the Affordable Care Act (ACA) is to reduce financial barriers to insurance, and thus to change the patterns of care and the total amount of care consumed. The ideal outcome envisioned by designers of the law was near-universal coverage, with virtually all Americans covered by health insurance. Such an outcome would presumably please the bulk of the population that was and is insured and that previously paid for charity and bad debt care used by the uninsured. But what would its effect be on the financial and economic welfare of those formerly uninsured people? That is the question this paper addresses.

The law includes three main provisions intended to reduce the number of uninsured with incomes above the Medicaid eligibility threshold of 138 percent of the Federal Poverty Level (FPL): (1) an individual *mandate* that will impose a fine if individuals remain uninsured (subject to an exception if coverage is "unaffordable"); (2) insurance premium *subsidies* to persons with incomes below 400 percent of FPL who obtain individual insurance through the exchanges and insurance cost sharing *subsidies* to persons with incomes up to 250 percent of FPL who obtain selected coverage through the exchanges; and (3) *regulation* of the relative premiums different people pay for individual insurance by prohibiting underwriting and pricing based on health risk and restricting premium variation in relation to age.

There is little evidence on how reform might have affected the financial and economic well-being of these "non-poor" potential enrollees (i.e., those with incomes above 138 percent of FPL). The data does indicate that many previously uninsured individuals who were not poor have obtained coverage through the exchanges during the first two enrollment years. Enrollment data for 2015 indicate that 83 percent of exchange enrollees had incomes less than 250 percent of FPL (ASPE 2015) and that estimated take up rates for exchange coverage by the previously

uninsured decline sharply with increases in income (Avalere 2015).[1] This paper estimates the potential financial and welfare consequences of moving this "non-poor" uninsured population, defined as those with incomes above the Medicaid limit, from no coverage to coverage.[2]

In addition to the ACA's obvious concern for the poor uninsured, there has been considerable policy interest in the larger population of non-poor uninsured for several reasons. Some argue that they act "irresponsibly" in not buying insurance and then failing to pay the full cost of care they receive, relying instead on charity care and bad debt forgiveness. Their irresponsibility is assumed to harm the insured members of the community both because the insured finance some of the care used by the uninsured and because they experience distress in observing the uninsured foregoing needed care due to financial barriers. Others are concerned that, even when the non-poor uninsured are willing to pay the full cost of care out of pocket, they may forgo care of high benefit to themselves and of concern to the rest of the community. Indeed, the provision in the ACA imposing a financial penalty on those who fail to obtain qualified coverage is called the "individual shared responsibility provision."

Reducing the extent and consequences of such "irresponsible" behavior was a major motivation for including the individual mandate in the ACA and other health reform proposals. One key question therefore is the law's effect on the average cost of medical care and insurance now shifted to the formerly uninsured who purchase coverage in response to the law. Another key issue is the extent to which the law reduced the financial risk (variability) in the cost of care for the formerly uninsured. But perhaps the most important key question is the extent to which this population will move from uninsured to insured, and the gains and losses they would

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[1] The extent to which previously uninsured persons have obtained coverage outside of the ACA exchanges is not yet known.

[2] Below this income threshold, individuals are eligible for Medicaid unless their state has opted out of the expansion. We consider 138 percent of FPL as the steady-state eligibility level for Medicaid.

experience from doing so. We therefore estimate the average financial impact of the law and other dimensions of welfare change resulting from the value of greater protection against the risk of high out-of-pocket cost and greater use of care.

Our empirical approach begins with a comparison of the payments (all out of pocket) made for care by the uninsured before the ACA to expected benchmark premiums and out-of-pocket payments under ACA Silver and Bronze insurance plans.[3] This comparison estimates the financial effects of coverage for the uninsured who obtain and pay for such coverage. We further estimate the welfare changes from increased coverage by developing estimates of any changes in "risk premiums," the values of increased risk protection. We also estimate the value to the formerly uninsured of any additional care they receive associated with insurance coverage under various assumptions concerning potential increases in the demand for care (whether due to moral hazard or income effects), and valuation of that care. Our estimates account for both premium subsidies and cost sharing subsidies. We focus on the lowest-cost Bronze plan and the second-lowest Silver plan as benchmark post-ACA choices.[4]

Finally, we use the resulting estimation of welfare gains and losses (in a way different from the elasticity-based simulation models used to predict post-ACA takeup) to describe the likely pattern of enrollment in or rejections of the new regulated, subsidized, and penalized options available to consumers after the ACA. Our results should be interpreted as predictions of the financial and welfare implications if nearly all of the uninsured were to purchase these types

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[3] The ACA permits five categories of plans to be sold in the individual health insurance market with benchmark actuarial values (percentage of eligible medical costs reimbursed by the plan, in parentheses): Bronze (60 percent), Silver (70 percent), Gold (80 percent), Platinum (90 percent), and catastrophic plans for young adults (< 60 percent). As noted, premium subsidies are available for plans purchased through the ACA exchanges for persons with incomes up to 400 percent of FPL. Cost sharing subsidies are available to purchases of Silver plans with incomes up to 250 percent of FPL.

[4] Premium subsidy amounts are based on the second lowest cost Silver plan offered in an enrollee's geographic rating area.

of coverage as the law intended. We do not estimate any welfare effects for the rest of the community from redistribution of the cost of care or from values they might attach to improved health or reduced financial risk for the formerly non-poor uninsured.

We find that, since the non-poor uninsured previously paid a relatively small share of their medical spending before the ACA and had a low level of total spending and use of care, most of them will experience both high premiums (net of subsidies) and (perhaps surprisingly) high average or expected out-of-pocket payments if they were to buy ACA coverage. At lower income levels, subsidies for premiums and cost sharing will limit the financial costs and incentivize purchase. At all income levels, the premiums will still represent positive payments for those who (by definition) previously paid nothing for insurance, while the effect of coverage in reducing out-of-pocket payments tends to be modest. At higher income levels, small or zero subsidies and currently modest penalties will not be enough to affect the large welfare losses that the middle class uninsured would experience were they to buy coverage. The minority of high risks among the middle class uninsured may gain, but most uninsured will lose and, according to our estimates, will prefer to remain uninsured at the current penalty levels for violating the individual mandate.

So in terms of welfare, our results suggest that many persons with low incomes may fare better after the ACA, but those formerly uninsured at higher incomes not in poor health consistently are worse off from purchasing coverage regardless of the assumptions made regarding spending increases and risk aversion. For those at low income levels, the welfare benefits from Silver coverage in terms of less variable out-of-pocket payments and from increased use of care may outweigh financial costs, leading to welfare improvements even if financial burden increases. Given that insurance reduces the variability of out-of-pocket

payments, the specific magnitudes of the welfare estimates, and the extent to which lower income groups benefit, depend in part on the assumed level of risk aversion and in part on the assumed extent of welfare cost due to moral hazard. We consider a "best-case" scenario in terms of the benefits furnished by insurance that assumes high risk aversion and values additional care equal to its cost (effectively assuming zero welfare cost of moral hazard). Under that scenario, we estimate meaningful welfare gains for the lowest-income group but still estimate sizable average welfare losses for those above 250 percent of FPL, significantly reducing incentives for obtaining coverage to comply with the law.

The paper proceeds as follows. Section II describes the basic empirical framework and data. Section III presents the specific approach to measuring the financial and economic welfare impacts of ACA coverage on the uninsured. Section IV presents results, and Section V concludes.

II. EMPIRICAL FRAMEWORK AND DATA

We use nationwide data from the CPS to measure the nationwide pre-ACA distribution of uninsured persons by age, sex, income, and state. The CPS provides the largest available sample of the uninsured at the state level. Information on the distribution of the uninsured by state is critical for our analysis because ACA insurance premiums vary by state. We use the nationwide MEPS to measure total health expenditures for this population and to estimate out-of-pocket payments in both the pre- and post-ACA periods. The MEPS contains measures of health care utilization and spending both by the patient and by other sources using the most detailed collection methods among nationwide surveys measuring health expenditure (Caswell and

O'Hara 2010), and it is the most frequently used data on total spending and out-of-pocket spending for the uninsured.

Our empirical model then compares the expected value of out-of-pocket payments for the population in the CPS sample of uninsureds with estimates of the sum of the premium and expected out-of-pocket payments for benchmark insurance plans for that population post ACA. That is, the measure of Financial Impact (FI) is defined as:

$$FI = E(OOP_U) - (Prem + E(OOP_I))$$

where $E(OOP_U)$ is the expected out-of-pocket payment when uninsured, $E(OOP_I)$ is the expected out-of-pocket payment under the benchmark insurance plan, and *Prem* is the premium for that plan.

The CPS sample includes adults who are citizens or non-citizen legal immigrants. We exclude observations who have any form of health insurance coverage (public or private), are younger than age 25 or older than 64, or have incomes below 138 percent of the FPL. We also limit the sample to single-person families to reduce possible errors in determining eligibility for family insurance coverage or premium tax credits in the exchanges. We combined CPS data for surveys from the years 2010 through 2012.

Premiums on all plans in each geographic rating area were collected from Healthcare.gov for the states in the Federally-Facilitated Marketplaces (FFM) and from state-based exchanges in State-based Marketplaces (SBM).[5] Premiums can vary within states by rating area. The premiums collected from the government's website are for individuals aged 40. We estimate premiums for other ages of CPS respondents using standard age curves from the Center for

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[5] We are grateful to Evan Saltzman for sharing his data on premiums from Taylor et al. (2015).

Medicare and Medicaid Services (CMS) or state-specific age-curves if applicable as published by the Center for Consumer Information and Insurance Oversight (CCIIO).[6]

III. CALCULATION OF FINANCIAL AND WELFARE IMPACTS

A. Premiums and Out-of-Pocket Payments

The measure of financial impact we use is the change in the sum of premiums and expected out-of-pocket payments.[7] This measure automatically adjusts for changes in coverage by using estimates of changes in average or expected out-of-pocket payments. For example, a formerly uninsured person who experiences a reduction in average out-of-pocket payment (after any cost-sharing subsidies) will experience a financial gain if this reduction exceeds the increase in net-of-subsidy premium paid. In the pre-ACA period this measure is obviously just the expected out-of-pocket payment since no premiums are paid.

The measure of premiums is a weighted average of the benchmark insurance premium for each age level and state, weighted by proportions in the CPS population. Within each of a set of income strata (based on income relative to the poverty line), the out-of-pocket payments and premiums are estimated separately for different age-gender subgroups, to reflect both potential demographic effects on out-of-pocket payments and the effect of age on exchange premiums. We then calculate the average difference pre- and post-ACA within each income stratum, using the demographic proportions in the CPS sample as weights.

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[6] The age-curve data by state is available at: www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Market-Reforms/state-rating.html#age (accessed September 3, 2015).

[7] This measure is the "total expected price" (TEP) from our earlier work (Pauly, Harrington, and Leive 2015), except that pre-ACA TEP for the uninsured only measures expected out-of-pocket payment. Changes in TEP represent the first-order effects of insurance coverage as modeled in the literature on health plan choice (Abaluck and Gruber 2011; Handel 2013; Heiss, Leive, McFadden, and Winter 2013).

Estimated out-of-pocket payments in the pre-ACA period using pre-ACA MEPS data are constructed from predictions from a GLM regression (with gamma family and log link) of out-of-pocket payment against a third-order polynomial in age interacted with sex, variables measuring income levels and ratio to the poverty line, census region of residence, MSA or non-MSA location, race, survey year, and self-reported health status diagnoses of chronic conditions. As described in detail below, we construct different risk groups based on age, sex, health status, and income and take the means from the out-of-pocket payment regression predictions by risk group. Since the MEPS sample is smaller than the CPS, we pool years 2007 through 2012.

To construct the measure of expected out-of-pocket payment under a benchmark ACA plan in the post-ACA period, we use data on total health care spending from the MEPS for each demographic, health status, and income subgroup. We then match MEPS estimates to the demographics of the CPS population within each income stratum. We impose the same restrictions on income and age as we do in the CPS. We inflate both out-of-pocket payments and total spending using the medical care component of the consumer price index from the Bureau of Labor Statistics. We do not use the restricted state-level MEPS because the small sample sizes by state prevents us from estimating spending distributions by age, sex, health status, and income. We instead use the same distributions of spending for all states and do not make any adjustments because analysis with the CPS found that state of residence was an insignificant predictor of pre-ACA out-of-pocket spending.[8]

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[8] The CPS contains data on out-of-pocket payments but not total health care spending. Our results are not sensitive to using the CPS to estimate pre-ACA OOP instead of the MEPS. We use the MEPS for pre-ACA OOP because we require its associated measure of total spending to estimate out-of-pocket payments post-ACA. In our previous analysis of those insured in the individual market (Pauly, Harrington, and Leive 2015), we studied the sum of insurance premiums and out-of-pocket payments in the pre-ACA period. Since the two quantities are tied together through coverage generosity, we used the CPS for pre-ACA TEP since it contained both OOP and premiums for large samples by state. Since our focus is now on the uninsured whose premiums were zero in the pre-ACA period, we use the MEPS to estimate out-of-pocket payments both before and after the ACA for consistency.

Measuring premiums and estimating out-of-pocket payments post-ACA requires a number of assumptions. For a given plan, ACA premiums vary by age, geographic region, and smoking status. Net-of-subsidy premiums vary by income level and the second-lowest cost Silver plan in a region. Our calculations are based on non-smoker premiums, which will understate average increases in TEP for the previously uninsured to the extent that post-ACA premiums for smokers are higher than for non-smokers. Enrollees with incomes up to 400 percent of the FPL are eligible for premium subsidies in the form of tax credits. The law stipulates the maximum percentage of modified adjusted gross income that the enrollee is required to pay for coverage according to their income, as shown in the Appendix. The tax credit is calculated as the difference between this maximum amount and their second-lowest Silver plan premium in the person's geographic rating area. This credit can also be directly applied to the premiums of other plans, such as less expensive Bronze plans. We calculate the tax credit using adjusted gross income measured in the CPS.

To provide a range of estimates of the financial impacts under various plan choices, we analyze premiums of the second-lowest premium Silver plan and the lowest premium Bronze plan. The lowest premium Bronze plan corresponds to the cheapest option (ignoring catastrophic plans for ages under 30). The second-lowest premium Silver plan is an important benchmark because it determines the size of the tax credit, and cost sharing subsidies for persons with income up to 250 percent of FPL are only available if a Silver plan is purchased. Evidence from states participating in the Federally Facilitated Marketplace indicates that most consumers chose the lowest or second-lowest cost Bronze and Silver plans (Burke, Misra, and Sheingold 2014). We do not consider what plans the formerly uninsured actually chose in the exchanges, both

because that data is still fragmentary and, more importantly, is endogenous to the TEP measure we seek.

For both the lowest premium Bronze and second-lowest premium Silver plans, we construct a state-level premium average that is weighted by the uninsured population within each county. The uninsured population is measured from the American Community Survey.[9] Ideally, we would match the premiums from each rating area to each of our CPS observations based on zip code. However, the CPS data does not include geographic information necessary to match to ACA rating areas. Instead, we match at the state-level, assigning the state's average premium to each CPS observation within that state.

To estimate expected out-of-pocket costs under the ACA, we need a distribution of medical care spending for the person to which the benefit provisions of Bronze or Silver coverage will be applied. After gaining insurance coverage, the distribution of spending use for the formerly uninsured may shift upward. Indeed, a major rationale for reform was to increase the consumption of care by low-income uninsured people. The new level of consumption may not match that of previous voluntary insurance purchasers, even after controlling for demographics, due to different preferences or tastes for medical care between former insurance purchasers and non-purchasers. For example, it is reasonable to believe that voluntary insurance purchasers facing market premiums at a given risk level likely have higher demands for care (conditional on insurance coverage) than those who must be subsidized or compelled to buy insurance. But because the ACA forbids most risk underwriting (except for location, age, and smoking), the uninsured population may have higher average risk than the insured population within each demographic cell even without moral hazard. On the other hand, if there was

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[9] The results are not sensitive to weighting by the total population rather than the uninsured population.

previously adverse selection because of imperfect risk rating, the average uninsured health risk may be lower. And if the uninsured have low tastes for care, the risk of spending—which is what matters—may actually be lower for an uninsured person with health problems than for a healthy insured person.

We allow for variation in potential demand responses due to price, income effects, and shifts in risk by estimating out-of-pocket spending using two different distributions of total health spending from the MEPS. As a lower bound, we use the pre-ACA spending distribution of the uninsured, which assumes no demand response (17,977 observations). At the other extreme, we use the distribution of persons with full-year private insurance in either the individual or group markets (42,903 observations). This group spends more than double that of the uninsured, conditional on age, sex, and income.

In each scenario, we further split the distributions by sex, ages above and below 40, self-assessed health (fair or poor vs. good, very good, or excellent) and two income groups (above vs. below 250 percent FPL) for a total of 16 age/sex/income cells. Sample size limitations preclude forming distributions based on finer categories of age, income, and other factors. The choice of 16 age/sex/income cells balances the goal of predictive information about health expenditure against adequate cell sizes.

Based on the CPS sample, a sizeable fraction of the uninsured eligible for exchanges have incomes well in excess of the poverty line. The proportion of the uninsured eligible for exchanges with incomes above 175 percent of the poverty line is 80 percent, and the proportion with incomes above 250 percent of the poverty line is 48 percent.[10]

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[10] As noted in the introduction, take up of coverage in the exchanges has been negatively and strongly related to income (Avalere 2015).

As described earlier, for each observation in the relevant MEPS subsample we calculate the (counterfactual) out-of-pocket payment that would result from applying representative cost sharing for Bronze and Silver plans to their observed spending. We assume Bronze plans have a deductible of $3,000 and coinsurance of 40 percent and that Silver plans have a $1,500 deductible and 20 percent coinsurance. Both plans have an OOP limit of $6,350.[11] Although specific benefit design information exists for each plan, the spending data is measured at aggregate levels not detailed enough in terms of service or timing to create valid counterfactual estimates, as data on individual insurance claims would permit.

We incorporate cost sharing subsidies that reduce out-of-pocket payments for Silver plans if the enrollee's income level is below 250 percent of the FPL. These subsidies take the form of reduced deductibles, coinsurance rates, and out-of-pocket maxima (see Appendix). For each MEPS observation, we apply the cost sharing subsidies applicable to that level of income when calculating out-of-pocket payments from total health spending. Very importantly, we also assume that the formerly uninsured who obtain coverage receive no charity care or bad debt adjustments to their cost sharing in the post-ACA period. The means of the simulated out-of-pocket payments for each of the demographic groups are then assigned to the corresponding CPS observations that match that age/sex/health status/income cell, weighting by the demographics of the CPS population within that particular cell.[12]

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[11] These parameters are consistent with those computed by various actuarial firms for Bronze and Silver plans presented in Kaiser Family Foundation (2011) and meet the actuarial value regulations using the CCIIO calculator. The deductibles are lower (and coinsurance higher) than reports on the deductibles most popular in plans actually purchased.

[12] We adjust the mean out-of-pocket payment calculated from the MEPS according to the demographics in the CPS within cells to account for differences in the age and income distributions within cells between surveys. As an extreme example, if the CPS cell including ages below 40 includes 99 respondents aged 25 and 1 respondent aged 35, while the corresponding MEPS cells includes 99 respondents aged 35 and 1 respondent aged 25, we want to correct for this difference since spending is related to age.

B. Welfare Adjustments to Estimated Financial Impact

1. Risk aversion

Because the demand for insurance stems from risk aversion, it is important to consider the value of financial protection furnished by insurance. Given variability in the incidence and severity of illness, any person's observed out-of-pocket payment will likely differ from its expected value (or from the average out-of-pocket payment for a population with the same socio-demographic characteristics). We develop a measure of the variance of out-of-pocket spending about its conditional mean before and after reform as a measure of financial protection, and value any increased protection using Arrow-Pratt approximations of the risk premium assuming constant absolute risk aversion.[13]

Specifically, we calculate the variance of the difference between actual OOP and predicted OOP from a GLM regression controlling for age, sex, geographic region, income, years of education, survey year, race, smoking status, and prior diagnoses of chronic conditions. We include measures of prior health status because they may be associated with differences in expected out-of-pocket payments both while uninsured and with incomplete coverage in Bronze or Silver plans. The residuals from these regressions represent the unexplained portion of out-of-pocket costs that are uncertain from the consumer's perspective. As a measure of risk, we calculate the variances of the residuals under Bronze and Silver benefit designs described above for each of the 16 demographic groups from our spending distributions. In calculating OOP for

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[13] Note that the distribution of out-of-pocket payment will be affected by moral hazard as well as by insurance coverage provisions. Other things equal, greater moral hazard will attenuate the financial value of insurance protection for persons whose insurance includes cost sharing by boosting both total care consumed and aggregate cost sharing for that care. If moral hazard is sufficiently high, financial risk may increase under insurance with cost sharing. For example, if lowering cost sharing from 50percent to 40 percent caused spending to increase from 100 to 130, out-of-pocket spending would increase from 50 to 52. Even with demand elasticity lower than unity, moral hazard attenuates the risk protection from greater insurance coverage.

those with incomes below 250 percent FPL, we incorporate cost sharing subsidies as shown in the Appendix.

The Arrow-Pratt risk premium approximation is $0.5\gamma\sigma^2$, where γ is the coefficient of absolute risk aversion and σ^2 is the variance of unexplained OOP.[14] The difference in variances pre- and post-ACA multiplied by 0.5γ thus yields the change in the risk premium, which will be positive if the variance of OOP decreases once insured. We focus on results using a coefficient of absolute risk aversion of 3×10^{-4} based on the insurance plan choice literature (Cohen and Einav 2007; Handel 2013; Handel and Kolstad 2015).[15] In robustness tests, we examine the sensitivity of our results to other assumed levels of risk aversion.

2. Value of additional health care

The second welfare adjustment reflects the value of additional care encouraged by insurance. We have already incorporated additional OOP from higher spending associated with providing coverage to the formerly uninsured. If there are no other impediments, and ignoring income effects, the value of this care to the insured must equal or exceed the price paid out-of-pocket, otherwise the care would not have been consumed (assuming informed consumers). But its value must fall short of the total cost of the incremental care (otherwise the care would have been consumed with no insurance), ignoring income effects. We assume that the value of the marginal dollar's worth of insured care to someone who obtains insurance with cost sharing c in the post-ACA period is $\$c$. But what was the marginal value of a dollar's worth of care not

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[14] This formula for the Arrow-Pratt approximation assumes risk is additively separable from wealth. The approximation is accurate only for small risks or special cases such as CARA utility with normally distributed risks.
[15] At this level of risk aversion, a consumer with CARA utility $U(x) = -\exp(-\gamma x)/\gamma$ would be indifferent between accepting or rejecting a bet that offered a 50-50 chance to win $1,000 or lose $768. As another example, a consumer with CARA utility and this level of risk aversion who faces a 20 percent chance of suffering a $1,000 loss would be willing to pay a risk premium of $225 to fully insure the prospective loss.

□

covered by insurance in the pre-ACA period? If there were no charity or bad debt care it would

be worth $1. Assuming a linear demand curve, the value of the additional care would then be

$(0.5) (1 - c)$ times the increment in spending. We use this value in our empirical estimates.

What is the effect of charity or bad debt care that reduced the cost of care to uninsured

people below its price? We can use the MEPS data to calculate the ratio r of out-of-pocket

payments to estimated total cost of care for the uninsured. That ratio is less than one for all

income categories (though it is higher for higher income uninsured) because of charity care and

bad debt. If the uninsured were able to adjust quantities, taking r into account, the starting point

marginal value would be $$r$ and the change in cost sharing would be $(r - c)$—so the value of

additional care would be lower than described in the previous paragraph. Since one of the

purposes of charity care for donors was presumably to increase access and use of care by the

uninsured to higher levels than they would have chosen facing the full price, we would expect

some increase. But it may be that there were some (more) strict limits on care for the uninsured.

This would be especially likely for bad debt, but could even characterize charity care if donors

were more interested in alleviating the financial burden on the uninsured than in expanding

volume. Hence we do not add a further downward adjustment to the value of care in our

empirical estimates, but note that they could represent an overvaluation of the benefits from

additional use from the direct consumer's perspective.

Figure 1 illustrates. We assume away income effects in this example, so that the demand

curve for a representative uninsured person D_U also reflects that persons' marginal benefit from

care. The coinsurance rate after the person buys coverage is c, and the person is able to obtain

the quantity he or she would demand at that price Q_I. If in contrast the person were both

uninsured and had to pay the full price of care, the quantity would be Q_U. But if the person

received charity care that reduced the marginal price per dollar of care to *r,* he or she would demand Q_R.

The two potential measures of the value of any additional care obtained by the formerly uninsured person are: (1) the area under the demand curve from Q_R to Q_I; or (2) the area under the demand curve from Q_U to Q_I. The latter amount would correspond to the limiting case in which donors (or debt forgiveness) held the increase in use in the pre-reform case to zero.

In summary: to estimate the value of the additional care caused by the presence of insurance coverage, we need to consider the effective marginal price before the ACA and the effective marginal price after the ACA given the choice of some particular ACA "metallic" tier of coverage. If the marginal price before the ACA were 100 percent of the cost or price, then the value of increased use is $0.5(P – cP)DQ$, where *c* is the post ACA coinsurance rate and *DQ* is the increase in use associated with it. But if the effective coinsurance rate before reform was less than unity (because of charity care), then the value may be as low as *r*, so the calculation would be $0.5(rP – cP)DQ$.

We provide one additional calculation corresponding to a "best-case" scenario in terms of the benefit furnished by insurance. One might assume that, because of imperfect information and other impediments, the additional care used had a higher value than implied by the previous discussion. There are some estimates that the additional use of care for the formerly uninsured might yield health benefits so large that it is cost effective (Miller, Vigdor, and Manning 2004). In the "best-case" scenario, we assume that incremental care had value equal to its cost in calculating welfare changes from insurance. We also use a higher level of risk aversion of 0.001 to calculate the risk reduction benefits from ACA coverage in this scenario.

IV. RESULTS

The CPS and MEPS data indicate that the uninsured spent relatively modest amounts out-of-pocket, on average, prior to the ACA. The mean OOP for the MEPS data shown in Table 1 is $409 (which is slightly higher than for the CPS). The data strongly suggest that the non-poor uninsured received costly care for which they did not pay, even at relatively high income levels. The difference between the "cost of care" the uninsured received (shown as total spending pre-ACA) and what they paid (OOP pre-ACA) is usually attributed to charity care and bad debt. The actuarial value of the implicit insurance that the uninsured received (at zero premiums), i.e., the fraction of total care not paid by the uninsured varies little across income groups, and averages about 75 percent—more generous than a Bronze plan and similar to that for a Silver plan.[16]

Gross and net premiums for Silver and Bronze plans are presented in the remaining columns of Table 1. The gross premiums differ by income only due to differences in the age distribution within each income stratum. Gross premiums on average are substantially higher than pre-ACA expected out-of-pocket payments for all income strata. Even with premium tax credits, Silver premiums are more than twice the level of expected pre-ACA OOP, even for those between 138 and 175 percent of FPL who receive large premium subsidies. On average for the full sample of formerly uninsureds, the net Silver premium of $2,458 is more than five times larger than pre-ACA OOP. The minimum premium Bronze plan has an average annual net premium of $1,541 across income groups. Applying the tax credit to lowest cost Bronze plans allows those at lower incomes to purchase coverage at very low prices. Individuals between 138 and 175 percent FPL would pay an average of just over $21 per month ($261 annually) for the minimum premium Bronze plan. But for all other income groups and for all other coverage

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[16] Specifically, the actuarial value is calculated as $1 - r$, where r is the ratio of total OOP summed across consumers to total spending summed across consumers. We use both OOP and total spending from the MEPS for consistency.

options, the post-ACA premiums alone exceed the average out-of-pocket payment while uninsured. So even if we assumed that post-ACA insurance eliminated out of pocket payments, the average uninsured person will suffer a financial loss because he or she will pay more in premiums than their expected payments when uninsured.

Table 2 presents estimated expected OOP in Bronze and Silver plans, again displaying pre-ACA OOP while uninsured for comparison. For both metallic levels, we present estimates for the two spending distributions used to simulate OOP in the post-ACA period: (1) original uninsured spending (implying no moral hazard); and (2) spending for persons insured in the individual market. For the uninsured with low incomes, estimated out-of-pocket spending is moderately reduced in Silver plans due to cost sharing subsidies if the spending distribution remains the same as without insurance, whereas the higher-income uninsured consistently have higher out-of-pocket spending even after obtaining coverage. With Bronze coverage, average OOP increases because cost-sharing subsidies are only available with Silver plans and the implicit actuarial value (as a proportion of total spending) from bad debt and charity care while uninsured was well above the 60 percent benchmark for Bronze coverage.

Table 3 shows that the sum of premiums and out-of-pocket payments (TEP) substantially exceeds the amounts paid while uninsured, even at lowest income levels. For all of the reasons just discussed, those receiving low or zero subsidies from the ACA pay more on average than they did in the pre-ACA period. But even these lower income people receiving significant premium and cost sharing subsidies end up paying more than before the ACA, largely because the ACA subsidies fall short of the implied subsidy provided by charity and bad debt care in the pre-ACA period.

As shown in Table 4, Panel A, ACA-approved coverage often does reduce the standard deviation of out-of-pocket spending for Silver plans, (while potentially increasing the mean value). However, the variability of OOP spending increases at all income levels for Bronze plans. The cap on out-of-pocket payments and Silver plan cost sharing subsidies drive the reductions in risk for Silver plans. On average, the standard deviation for OOP in Silver plans falls even though mean spending rises with the privately insured distribution due to better coverage.

Panel B of Table 4 translates the change in variances (pre minus post) into a change in the risk premium, so that positive numbers indicate a fall in the risk premium after the ACA, representing greater financial protection. The large reductions in OOP risk for Silver plans translate into reduced risk premiums compared to pre-ACA OOP (Panel B of Table 4). In contrast, although Bronze plans cap out-of-pocket payments, the relatively low variability in pre-ACA OOP results in small increases in the risk premium from pre-ACA levels to post-ACA levels using the spending distribution of the previously uninsured. The increases in risk premiums for Bronze plans based on individually insured spending are greater, indicating less risk protection benefits in Bronze plans compared with charity and bad debt care in the pre-ACA period.

Estimates of total medical care spending and the value of the increased care consumed due to insurance are presented in Table 5. The estimated values of increased care are between $2,064 and $2,760 using the conventional approximation to measuring the welfare cost of moral hazard, which assumes the marginal value of care is half its cost. The estimated benefits for Bronze coverage are modestly larger than for Silver coverage because the consumer pays higher

out-of-pocket prices under Bronze plans and thus less of total spending is counted as deadweight loss compared to Silver plans (with total spending assumed to be constant).

The total welfare change from obtaining coverage is calculated by subtracting the benefits from insurance from the additional amounts paid for insurance and care. Specifically, the difference in the risk premium and value of increased care consumed represent the benefits from insurance, while the difference in the sum of premium and average OOP (post minus pre) represents the price paid.

Table 6 presents estimates of welfare change by income group if all (or a random sample) of that group were to obtain coverage. Average welfare for the uninsured population would be estimated to decline after the ACA if all members of that population obtained coverage. The fall in welfare is roughly the same amounts on average for Bronze and Silver plans. At the lowest income stratum and under the assumption that spending increases, there are welfare gains because of subsidies and increased access. Those at all higher-income levels, a majority of the uninsured eligible for exchanges, suffer welfare losses that increase with income because subsidies diminish and then disappear.

To examine the sensitivity of our results to health risk, the risk aversion parameter, and the value of additional consumption, we also provide estimates for subpopulations at various risk levels and for the entire population using a risk aversion coefficient of 0.001 and an assumption that the value of all additional care is equal to the amount of spending. Table 7 shows the distribution of welfare changes for subpopulations based on health risk. As expected, higher risk groups that will benefit from community rating will sometimes be better off because they benefit from substantially increased care but their specific premiums do not reflect that higher use. Table 8 in contrast shows the "best-case" scenario in terms of the benefits furnished by insurance

for the population of formerly uninsured.[17] Persons between 138 and 175 percent of FPL on

average are now substantially better off with Silver and Bronze coverage using the distribution of

privately insured spending but face welfare losses under the previously uninsured spending

distribution. The estimates still indicate welfare declines for higher-income groups, with the

estimated losses ranging up to several thousand dollars.

　　　To summarize, we consistently find that the previously uninsured with incomes above

250 percent of FPL would on average experience welfare declines with Silver or Bronze

coverage. Tables 9 and 10 provide estimates of takeup rates calculated by subtracting from any

welfare loss the penalty associated with the individual mandate as well as the explicit subsidies.

Not unexpectedly, predicted takeup rates are high among high risks but low among the more

numerous low and average risks even in the optimistic best case scenario. Estimated takeup rates

are close to those observed in the insurance exchanges (Avalere 2015).

V. CONCLUSION

　　　Our estimates indicate that the majority of the previously uninsured would be subject to

substantial negative financial impacts by purchasing insurance on exchanges in response to the

ACA. Impacts on welfare are less stark, with potential gains at low income and high risk levels.

However, many of the non-poor formerly uninsured are estimated to be worse off because the

subsidies are not large enough and coverage not generous enough to offset their new obligation

to pay part of the premium along with required cost sharing. This loss contributes to the

relatively low estimated takeup rates to date for exchange coverage for persons who do not

qualify for large premium subsidies and cost sharing subsidies. The result is driven by the

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[17] We do not provide estimates based on the lower value of additional care discussed earlier in the paper, where the uninsured adjusted their use based on lower marginal out-of-pocket prices due to charity care.

uninsured paying a small fraction of their costs prior to the ACA, and this empirical pattern also explains the low estimated value of providing Medicaid to the uninsured in recent work by Finkelstein, Hendren, and Luttmer (2015).

To be sure, benefits from ACA coverage include better protection against very large and unexpected out-of-pocket payments, and access to additional care which provides some health and consumption benefits. Even if a formerly uninsured person is made worse off, the rest of the community may gain from the now "responsible" behavior. It will be important to examine the level and pattern of these increased financial burdens to judge whether they are of sufficient social value to justify their imposition.

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Figure 1. Valuation of additional consumption from lower prices due to insurance coverage
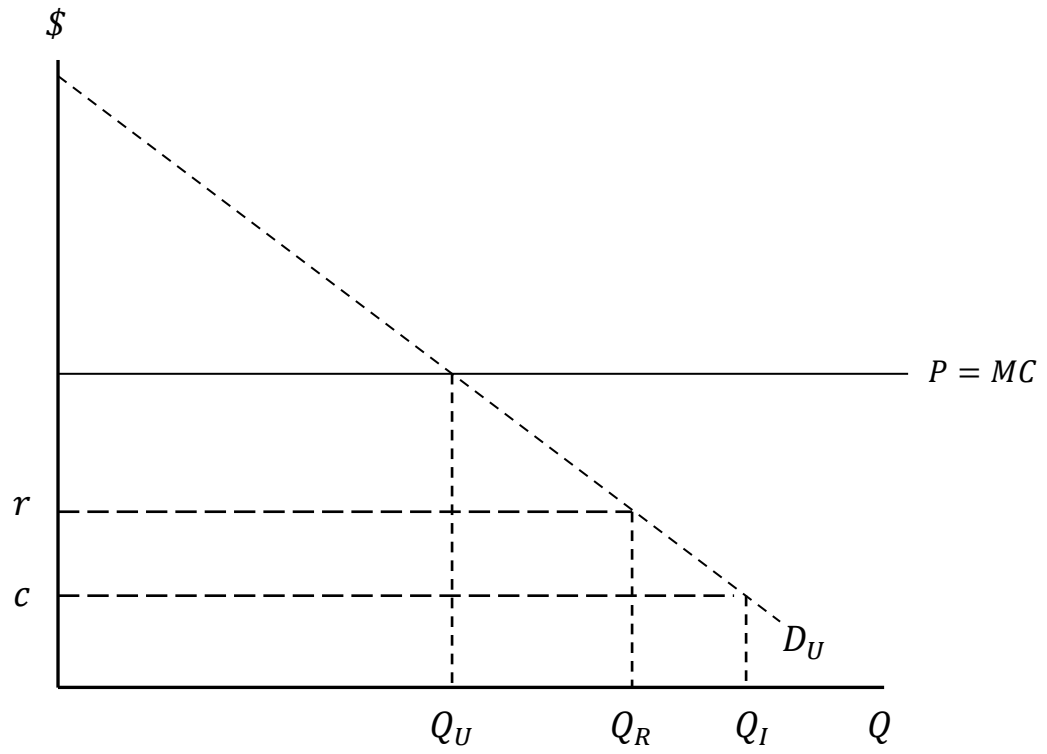
Table 1. Average annual pre-ACA OOP and post-ACA premiums
for alternative spending distributions ($)

Income group (%FPL)	OOP pre-ACA	Total spending pre-ACA	Gross Silver premium (2nd lowest)	Tax credit	Net Silver premium (2nd lowest)	Gross Bronze premium (lowest)	Net Bronze premium (lowest)
138 – 175 (N = 1,515)	373	1,624	3,794	2,735	1,059	2,857	261
175 – 250 (N = 2,390)	351	1,510	3,739	1,923	1,816	2,812	910
250 – 325 (N = 1,518)	462	1,978	3,787	880	2,907	2,847	1,967
325 – 400 (N = 763)	457	1,976	3,943	587	3,356	2,961	2,374
>400 (N = 1,333)	461	1,975	4,033	0	4,033	3,030	3,030
Total (N = 7,519)	409	1,761	3,836	1,378	2,458	2,885	1,541

Table 2. Average annual out-of-pocket payments for alternative spending distributions ($)

Income group (%FPL)	Pre-ACA OOP	Silver		Bronze	
		Previous uninsured spending	Privately insured spending	Previous uninsured spending	Privately insured spending
138 – 175	373	357	1,032	784	1,909
175 – 250	351	340	1,004	745	1,851
250 – 325	462	691	1,613	965	2,271
325 – 400	457	683	1,602	952	2,257
>400	461	686	1,603	957	2,259
Total	409	513	1,304	857	2,064

Note: The first column presents estimated OOP paid by the uninsured before the ACA using data from the MEPS. The remaining columns estimate OOP under Silver and Bronze plans assuming different distributions of total spending as described in the text using data from MEPS.

Table 3. Average annual total expected price (TEP) for alternative spending distributions ($)

Income group (%FPL)	Pre-ACA	Silver		Bronze	
		Previous uninsured spending	Privately insured spending	Previous uninsured spending	Privately insured spending
138 – 175	373	1,416	2,091	1,045	2,170
175 – 250	351	2,156	2,820	1,655	2,761
250 – 325	462	3,598	4,520	2,932	4,238
325 – 400	457	4,039	4,958	3,326	4,631
>400	461	4,720	5,636	3,987	5,289
Total	409	2,971	3,762	2,398	3,605

Note: The first column presents estimated OOP paid by the uninsured before the ACA. The remaining columns present the sum of premiums and expected OOP payments under Silver and Bronze plans assuming different distributions of total spending as described in the text using data from MEPS.

Table 4. Standard deviation of unpredictable OOP and risk premiums for alternative spending distributions ($)

A. Standard deviation of unpredictable OOP

Income group (%FPL)	Pre-ACA OOP	Silver		Bronze	
		Previous uninsured spending	Privately insured spending	Previous uninsured spending	Privately insured spending
138 – 175	1,242	500	704	1,345	1,869
175 – 250	1,214	490	697	1,317	1,854
250 – 325	1,270	1,012	1,404	1,416	1,881
325 – 400	1,266	1,009	1,401	1,411	1,879
>400	1,280	1,004	1,383	1,406	1,867
Total	1,248	745	1,040	1,369	1,867

B. Change in Risk premiums (pre- minus post ACA Arrow-Pratt approximations)

Income group (%FPL)	Silver		Bronze	
	Previous uninsured spending	Privately insured spending	Previous uninsured spending	Privately insured spending
138 – 175	229	193	-16	-262
175 – 250	217	181	-16	-266
250 – 325	123	-20	-29	-252
325 – 400	118	-24	-31	-256
>400	128	-9	-22	-242
Total	174	87	-21	-257

Note: Panel A presents the standard deviation from the residual of a GLM regression of out-of-pocket spending against a cubic in age interacted with sex, cubic in income as a percentage of the FPL, indicators for year, race, MSA or non-MSA area, four Census regions, and income levels. Panel B reports the difference in variances of unexplained OOP multiplied by one-half the coefficient of absolute risk aversion of 0.0003. This estimate of the change in risk premiums represents the value of differences in risk protection after the ACA.

Table 5. Average annual total spending and value of additional care or alternative spending distributions ($)

| Income group (%FPL) | Total Spending | | Value of Increased Care Consumed | |
| | | | Silver | Bronze |
	Previous uninsured spending	Privately insured spending	Privately insured spending	Privately insured spending
138 – 175	1,605	5,321	2,064	2,601
175 – 250	1,499	5,061	2,171	2,493
250 – 325	1,979	5,922	2,563	2,760
325 – 400	1,966	5,908	2,562	2,759
>400	1,960	5,885	2,551	2,747
Total	1,750	5,525	2,339	2,643

Note: The value of additional care equals one-half of the change in total spending for the respective distribution of spending.

Table 6. Average change in welfare by income for alternative spending distributions ($)

Income group (%FPL)	Silver		Bronze	
	Previous uninsured spending	Privately insured spending	Previous uninsured spending	Privately insured spending
138 – 175	-814	539	-688	543
175 – 250	-1,588	-117	-1,320	-184
250 – 325	-3,014	-1,516	-2,499	-1,268
325 – 400	-3,464	-1,963	-2,901	-1,672
>400	-4,131	-2,633	-3,548	-2,323
Total	-2,388	-928	-2,010	-810

Note: The change in welfare is calculated assuming a coefficient of absolute risk aversion γ equal to 0.0003 and that the value of additional care equals one-half the change in total spending. All changes are significantly different from zero at the 0.01 level based on tests from running an OLS regression of welfare change for each observation against indicator variables, clustering by age-state pairs.

Table 7. Average change in welfare by health status and income for alternative spending distributions ($):

Self-assessed health	Silver		Bronze	
	Previous uninsured spending	Privately insured spending	Previous uninsured spending	Privately insured spending
Fair or Poor	-2,038	728	-1,961	791
Good, Very Good, Excellent	-2,421	-1,083	-2,015	-960
		Fair or Poor health		
Income group (%FPL)				
138 – 175	-387	2,219	-815	2,027
175 – 250	-1,235	1,434	-1,316	1,179
250 – 325	-2,743	235*	-2,340	621
325 – 400	-3,336	-651	-2,856	-247*
>400	-4,551	-1,536	-4,040	-1,062
		Good, Very Good, or Excellent health		
Income group (%FPL)				
138 – 175	-863	346	-673	372
175 – 250	-1,621	-262	-1,321	-311
250 – 325	-3,039	-1,676	-2,513	-1,441
325 – 400	-3,477	-2,098	-2,905	-1,818
>400	-4,101	-2,710	-3,513	-2,411

Note: The change in welfare is calculated assuming a coefficient of absolute risk aversion γ equal to 0.0003 and that the value of additional care equals one-half the change in total spending.. * Change not statistically different from zero at the 0.1 level. All changes are significantly different from zero at the 0.01 level based on tests from running an OLS regression of welfare change for each observation against indicator variables, clustering by age-state pairs.

Table 8. Average change in welfare under "Best-case" scenario
for alternative spending distributions ($):

Income group (%FPL)	Silver		Bronze	
	Previous uninsured spending	Individually insured spending	Previous uninsured spending	Individually insured spending
138 – 175	-279	2,642	-725	1,046
175 – 250	-1,081	1,695	-1,358	263
250 – 325	-2,728	-183	-2,565	-674
325 – 400	-3,188	-640	-2,973	-1,087
>400	-3,832	-1,279	-3,598	-1,709
Total	-1,982	712	-2,060	-277

Note: The welfare estimates in this table assume a coefficient of absolute risk aversion $\gamma = 0.001$ and the value of additional care equals its cost. All changes are significantly different from zero at the 0.01 level based on tests from running an OLS regression of welfare change for each observation against indicator variables, clustering by age-state pairs.

Table 9. Predicted take-up rates by income for alternative spending distributions ($)

| | Previous uninsured spending | | Privately insured spending | | "Best case" scenario | | | |
| | | | | | Previous uninsured spending | | Privately insured spending | |
Income group	Silver	Bronze	Silver	Bronze	Silver	Bronze	Silver	Bronze
138 – 175	8%	0%	75%	77%	26%	16%	100%	74%
175 – 250	0%	0%	46%	49%	16%	5%	90%	57%
250 – 325	0%	1%	7%	13%	2%	1%	53%	37%
325 – 400	1%	1%	3%	8%	1%	1%	38%	25%
>400	1%	1%	5%	5%	1%	1%	34%	21%
Total	2%	0%	32%	35%	11%	5%	69%	46%

Note: For the base scenario (columns 1-4), the coefficient of absolute risk aversion γ equals 0.0003 and the value of additional care is assumed to equal one-half its cost. For the "Best-case" scenarios, risk aversion $\gamma = 0.001$ and value of additional care equals its cost.

Table 10. Predicted take-up rates by income and health status

	Previous uninsured spending		Privately insured spending		"Best case" scenario Previous uninsured spending		Privately insured spending	
	Silver	Bronze	Silver	Bronze	Silver	Bronze	Silver	Bronze
Health status								
Fair or Poor	17%	4%	69%	73%	40%	26%	89%	79%
Good, Very Good, or Excellent	1%	0%	29%	32%	8%	3%	67%	43%
Fair or Poor health								
Income group (%FPL)								
138 − 175	53%	0%	92%	91%	76%	44%	100%	86%
175 − 250	3%	0%	76%	75%	49%	30%	100%	76%
250 − 325	6%	7%	80%	81%	21%	17%	81%	81%
325 − 400	8%	8%	31%	70%	8%	10%	73%	73%
>400	12%	12%	29%	32%	12%	12%	68%	75%
Good, Very Good, or Excellent health								
Income group (%FPL)								
138 − 175	3%	0%	73%	76%	20%	13%	100%	73%
175 − 250	0%	0%	43%	47%	13%	2%	89%	55%
250 − 325	0%	0%	0%	7%	0%	0%	51%	33%
325 − 400	0%	0%	0%	1%	0%	0%	35%	21%
>400	1%	1%	4%	3%	1%	1%	31%	17%

Note: For the base scenarios (Columns 1-4), the coefficient of absolute risk aversion γ equals 0.0003 and value of additional care equals one-half its cost. For the "Best-case" scenarios (Columns 5-8), risk aversion γ = 0.001 and value of additional care equals its cost.

Appendix

Schedule of Premium and Cost Sharing Subsidies

Income group (%FPL)	AGI from CPS uninsured sample ($)	Premium subsidy: Max % income on premium	Cost sharing subsidy		
			Max deductible	Max coinsurance	Max OOP limit
138 – 150	18,513	4.0	0	0.15	1000
150 – 200	24,363	6.3	400	0.15	2000
200 – 250	33,080	8.0	1500	0.2	2,250
250 – 400	42,005	9.5	No subsidy	No subsidy	No subsidy
>400	80,448	No subsidy	No subsidy	No subsidy	No subsidy

By Daniel R. Austin and Laurence C. Baker

Less Physician Practice Competition Is Associated With Higher Prices Paid For Common Procedures

ABSTRACT Concentration among physician groups has been steadily increasing, which may affect prices for physician services. We assessed the relationship in 2010 between physician competition and prices paid by private preferred provider organizations for fifteen common, high-cost procedures to understand whether higher concentration of physician practices and accompanying increased market power were associated with higher prices for services. Using county-level measures of the concentration of physician practices and county average prices, and statistically controlling for a range of other regional characteristics, we found that physician practice concentration and prices were significantly associated for twelve of the fifteen procedures we studied. For these procedures, counties with the highest average physician concentrations had prices 8–26 percent higher than prices in the lowest counties. We concluded that physician competition is frequently associated with prices. Policies that would influence physician practice organization should take this into consideration.

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Over the past decade, there has been a steady shift among physicians away from solo and small-group practices toward larger entities.[1–3] Larger practices with more resources may be better able to coordinate care by multiple providers, more rapidly implement process improvements, more effectively harness technological advances, and more quickly identify new strategies that benefit more patients.[4–7] One possible trade-off, however, is greater market power held by fewer provider groups, which may result in higher prices.

Rising market concentration has raised concerns about higher prices in a variety of industries, from airlines to hospitals, and some have grown concerned that the movement toward increasingly consolidated physician practices could also raise prices for health services.[8] Prior work on the effects of concentration in health care has focused predominantly on hospitals and insurance companies,[8] and less is known about physician practices. To date, studies of the relationship between physician concentration and prices have been limited to composite price measures for particular specialties (such as orthopedics or cardiology), to particular geographic areas, or to prices for nonprocedural services such as office visits.[9–11] We set out to examine the relationship between increasing concentration across specialties and prices for medical and surgical procedures, given the importance of procedures as a driver of rising costs in the United States. We focused our attention on high-cost, high-volume procedures, reasoning that these are important for overall spending and, because they may be of particular interest to physicians, would likely be associated with variations in concentration, if such associations exist.

Having a better understanding of how reduced competition among physicians influences payments for medical and surgical procedures will

be valuable, given the likely continuing attention to policy measures focused on changes in delivery system structure.[12] It may also help clarify some of the potential causes of remarkable regional variation in prices for identical medical services across the United States.[13–15] Two- to threefold variations in average prices across areas have been commonly noted—for example, in knee replacement, where area average prices have been reported to range from a low of less than $20,000 to highs near $60,000.[16]

Study Data And Methods

We conducted our study by combining county-level measures of prices paid by preferred provider organizations (PPOs) for common procedures with data on the average concentration of physician practices derived from Medicare claims data, and using regression analysis to conduct a cross-sectional analysis of the association between these measures, controlling for a range of possible confounding variables.

PRICES PAID FOR MEDICAL AND SURGICAL PROCEDURES Pricing data for physician services were obtained from the Truven Health Analytics MarketScan Commercial Claims and Encounters database for 2010.[17] The database contains information from adjudicated and paid claims filed for the care of roughly forty-nine million privately insured individuals who obtain insurance coverage through their employer. The database covers a wide geographic range and variety of insurers and is considered a reliable source

for health care spending and reimbursement information.[10,15,18–20]

We studied fifteen high-cost, high-volume procedure-specialty combinations, each comprising claims by physicians in a given specialty for the performance of a given procedure (Exhibit 1). After inspecting the number of claims for procedures that appeared in the data, we found that selecting all procedure-specialty combinations with at least 7,000 total bills in 2010 and a mean price of at least $500 yielded a set of procedure-specialty combinations that each had enough cases for strong statistical analyses and that represented a diverse group of specialties. Further details on the selection of procedures is available in the online Appendix.[21]

In our analysis, we included only claims from health plans identified as PPOs that paid physicians on a fee-for-service basis. We also required that the patient was younger than age sixty-five; the provider of the billed service was identified as an in-network physician; the reported place of service was a physician office, inpatient hospital, hospital outpatient facility, or ambulatory surgery center; the claim was for professional services (as opposed to facility charges); and the claim had no Current Procedural Terminology (CPT) modifier codes, which when present on a claim can affect the amount paid. A small number of claims with prices more than 100 times or less than 0.01 times the national mean for the given CPT code were excluded as outliers. Our analysis was conducted at the county level, and for each procedure-specialty combination we in-

EXHIBIT 1

Fifteen High-Cost, High-Volume Procedure-Specialty Combinations Analyzed, And Sizes Of Samples Used In The Analysis

CPT code	Procedure	Specialty	No. of claims on which analysis is based	No. of counties used in analysis
17311	Mohs surgery for skin tumor	Dermatology	21,916	490
27447	Total knee replacement	Orthopedics	7,930	509
29826	Shoulder arthroscopy and surgery	Orthopedics	7,914	610
29881	Knee arthroscopy and surgery	Orthopedics	16,471	922
30520	Repair of nasal septum	Otolaryngology	15,025	833
44970	Laparoscopic appendectomy	General surgery	12,017	991
45385	Colonoscopy with lesion removal	Gastroenterology	72,627	1,453
47562	Laparoscopic cholecystectomy	General surgery	28,570	1,525
47563	Laparoscopic cholecystectomy with imaging	General surgery	13,730	928
49505	Inguinal hernia repair	General surgery	6,431	609
50590	Fragmenting of kidney stone	Urology	9,170	666
55250	Vasectomy	Urology	21,954	904
66984	Cataract removal and prosthetic lens	Ophthalmology	8,394	661
77418	Intensity-modulated radiation therapy	Radiation oncology	20,625	153
92980	Insertion of intracoronary stent	Cardiology	6,355	546

SOURCE Authors' analysis of Truven Health Analytics MarketScan Commercial Claims and Encounters data for 2010. **NOTE** CPT is Current Procedural Terminology.

Our findings are consistent with the hypothesis that greater market power allows physicians to bargain for higher prices from insurers.

cluded only claims from counties that had at least three claims for that procedure-specialty combination. Finally, we excluded combinations involving either obstetrics and gynecology or pediatrics, since our practice competition measures are derived from Medicare data, in which these specialties are inadequately represented.

For each county, for each procedure-specialty combination, we obtained the number of claims and mean price paid to physicians reporting a practice location in the county, separately by place of service. The payment we studied was the amount the plan agreed to pay the physician for the service, after the application of contractual discount provisions and other plan rules, commonly called the "allowed amount." We refer to this as the "price" for the service. The physician may have received this partly from the insurer and partly from the patient in the form of applicable copayments or deductibles.

PHYSICIAN PRACTICE COMPETITION The MarketScan data do not contain enough information to measure competition, so we derived our competition measures from Medicare claims filed by physicians for the care of a 20 percent random sample of traditional Medicare enrollees. Medicare claims reflect care delivered by a very large share of active physicians, and the set of physicians who billed traditional Medicare should overlap substantially with the set of physicians who provide services to private PPO patients. Since physician-insurer negotiations over procedure pricing occur prior to enactment of new pricing, practice competition measures from 2009 Medicare data were matched with pricing measures from 2010 MarketScan data.

Consistent with previous work,[3,10,22–24] we defined physician practices as a group of physicians in the same specialty who billed under the same tax ID (additional discussion of the identification of practices using tax ID can be found in the online Appendix).[21]

As with other recent studies and consistent with practices of the Federal Trade Commission and the Department of Justice, we used the Herfindahl-Hirschman Index (HHI) for measuring competition among physician practices.[10,25–28] Higher HHIs indicate less competition. The highest possible HHI of 10,000 indicates a monopoly market, served by a single practice. As the number of practices increases, and the size of each individual practice falls, the amount of competition will increase, and the HHI will decline toward zero.

We constructed an HHI for each practice, reflecting the market area served by the practice, with the same methods used in prior studies of physician groups and hospitals,[10,26,29] incorporating guidance from the Federal Trade Commission and the Department of Justice for assessing competition among accountable care organizations.[24] To allow comparison to the price data, which were measured at the county level, we required a corresponding measure of the amount of competition facing practices in the county. We constructed this as the county-level mean of the practice HHIs of physicians located within each county. The Appendix contains additional information on the computation of the HHIs.[21]

STATISTICAL ANALYSES We used ordinary least squares linear regression to examine the association between HHI and procedure price measures. The main independent variable was the HHI. For each procedure-specialty combination, we grouped counties into quartiles according to the HHI and included dummy variables for quartiles in the models. We also included a set of controls to adjust for characteristics of counties that could influence prices, including county population; the total number of physicians per population; the number of physicians in the given specialty per population; the number of short-term general hospitals and hospital beds per population; the HHI of hospitals serving the county; median household income;, the percentage of the population uninsured, older than age twenty-five who completed high school, older than age twenty-five who completed four or more years of college, enrolled in Medicare, or eligible for Medicaid; and a dummy for counties in Metropolitan Statistical Areas, defined by the Census Bureau as groups of counties tied to urban centers of 50,000 people or more. We used the Medicare Geographic Practice Cost Indices to control for practice costs. We estimated models separately for each procedure-specialty combination, which allowed for variation in the association between concentration and prices across procedures and specialties. We report the predicted

prices by HHI quartile, holding the controls fixed at their sample means.

Since the regression models controlled for the number of physicians per capita, the associations between HHI and prices we measured should be interpreted as reflecting differences in the ways physician practices are organized, statistically holding fixed the number of physicians. That is, they may be interpreted as showing, for a given number of physicians, how prices vary when those physicians are organized into larger instead of smaller practices.

We conducted a number of sensitivity analyses (details on the sensitivity analyses are available in the Appendix).[21] First, we excluded counties not in a Metropolitan Statistical Area and re-estimated the model. Second, we added state fixed effects to the model. The fixed effects capture characteristics of states that we did not observe but could have been correlated with competition and prices, although at the risk of "overcontrolling" and causing us to underestimate the true strength of the association between HHI and prices. Third, we included a control for the presence of multispecialty groups, which may be related to market competition factors. Finally, we included a measure of the HHI of area PPOs,[30] available for a subset of the counties in our analysis.

Throughout the analysis, we computed robust standard errors to account for variation in the number of claims underlying the dependent variables.

LIMITATIONS This study faced limitations inherent to the study's design and data, including those that arose from cross-sectional analyses and the corresponding risk that there were omitted regional characteristics and other confounding factors.

One confounder that was potentially important but difficult to observe was the degree of competition between private insurers. Our main models did not control for insurer competition. Although available measures of PPO competition have significant flaws,[31] we performed sensitivity tests using one such measure.[30] We also conducted sensitivity analyses that included state fixed effects, which control for state-level insurer competition (and any other unobserved but relevant characteristics of states). The consistency of our results in these sensitivity tests added additional confidence that our overall conclusions were not as a result of unobserved differences across regions in insurer competition or other state characteristics. (See the Appendix for these sensitivity results.)[21]

An additional consideration was the possibility of reverse causality if variations in physician concentration were driven by variations in pric-

Policies that balance any benefits of larger organizations with the potential for problematic price increases are needed.

es. While this was possible, we reasoned that practices would be most likely to consolidate in response to lower prices. Since we found more concentration associated with generally higher prices, we believe that the most likely effect of reverse causality, if present, would lead to conservative results that understate the strength of the association between concentration and prices.

Finally, this study used prices paid by PPO plans offered by a group of generally large employers, which might not be representative of other types of insurance coverage.

Study Results
Based upon our price and volume thresholds, we identified fifteen specialty-procedure combinations that spanned a total of nine surgical and medical specialties: dermatology, cardiology, radiation oncology, gastroenterology, otolaryngology, urology, ophthalmology, orthopedics, and general surgery (Exhibit 1). The number of county-level observations varied across the procedure-specialty combinations because of variations in the total number of claims in the database for each and the extent to which physicians in the relevant specialty were geographically dispersed.

The average level of concentration varied across the counties studied for each procedure-specialty combination (Exhibit 2). General surgeons, orthopedists, and ophthalmologists had the lowest HHIs, while urologists and radiation oncologists had the highest among the specialties in our study. There was considerable variation across counties within specialties. The mean practice HHI in the ninetieth-percentile county was always more than twice that in the tenth-percentile county and was frequently more than three times higher. The HHI in the seventy-fifth-percentile county was 1,300–2,400 higher than in the twenty-fifth-percentile county. Fourteen of

EXHIBIT 2

Summary Statistics For Herfindahl-Hirschman Indices (HHIs) For Fifteen Procedure-Specialty Combinations

Procedure (specialty)	No. of counties	Mean HHI	HHI percentile across counties				
			10th	25th	50th	75th	90th
Mohs surgery for skin tumor (dermatology)	490	3,175	1,457	1,902	2,676	4,020	5,867
Total knee replacement (orthopedics)	509	3,187	1,677	2,123	2,847	3,896	5,172
Shoulder arthroscopy and surgery (orthopedics)	610	3,038	1,647	2,026	2,718	3,723	4,923
Knee arthroscopy and surgery (orthopedics)	922	3,149	1,662	2,092	2,803	3,846	5,138
Repair of nasal septum (otolaryngology)	833	4,005	2,143	2,821	3,673	4,876	6,323
Laparoscopic appendectomy (general surgery)	991	3,058	1,757	2,169	2,773	3,676	4,782
Colonoscopy with lesion removal (gastroenterology)	1,453	3,964	1,855	2,567	3,729	5,005	6,472
Laparoscopic cholecystectomy (general surgery)	1,525	3,048	1,729	2,151	2,718	3,648	4,791
Laparoscopic cholecystectomy with imaging (general surgery)	928	3,186	1,780	2,227	2,835	3,770	5,170
Inguinal hernia repair (gGeneral surgery)	609	2,974	1,716	2,117	2,597	3,500	4,703
Fragmenting of kidney stone (urology)	666	4,509	2,535	3,242	4,196	5,605	7,011
Vasectomy (urology)	904	4,601	2,604	3,278	4,304	5,683	7,199
Cataract removal and prosthetic lens (ophthalmology)	661	2,535	1,304	1,650	2,213	3,144	4,150
Intensity-modulated radiation therapy (radiation oncology)	153	6,096	3,851	4,804	6,074	7,227	8,344
Insertion of intracoronary stent (cardiology)	546	3,184	1,389	2,016	2,961	3,957	5,314

SOURCE Authors' analysis of HHI measures for analysis counties derived from Medicare claims data for 2009.

the fifteen procedure-specialty combinations examined had HHIs of more than 2,500 in the fiftieth-percentile county, above the threshold used by the Federal Trade Commission and the Department of Justice to classify markets as being highly concentrated.[27]

Mean prices for the procedures studied varied (Exhibit 3). Total knee replacement and insertion of intracoronary stent were the two most expensive, on average ($2,301 and $1,282, respectively), and vasectomy and colonoscopy were the least expensive ($576 and $586, respec-

EXHIBIT 3

Summary Statistics For Procedure Prices Across Counties For Fifteen Procedure-Specialty Combinations

Procedure (specialty)	No. of counties	Mean price ($)	Price percentile across counties ($)				
			10th	25th	50th	75th	90th
Mohs surgery for skin tumor (dermatology)	490	724	503	572	672	822	1,028
Total knee replacement (orthopedics)	509	2,301	1,551	1,786	2,119	2,549	3,184
Shoulder arthroscopy and surgery (orthopedics)	610	758	420	538	667	883	1,150
Knee arthroscopy and surgery (orthopedics)	922	936	592	694	838	1,036	1,301
Repair of nasal septum (otolaryngology)	833	755	474	568	680	850	1,136
Laparoscopic appendectomy (general surgery)	991	816	588	666	743	900	1,033
Colonoscopy with lesion removal (gastroenterology)	1,453	586	353	416	537	687	870
Laparoscopic cholecystectomy (general surgery)	1,525	1,034	710	821	930	1,121	1,341
Laparoscopic cholecystectomy with imaging (general surgery)	928	1,091	769	866	1,002	1,196	1,415
Inguinal hernia repair (general surgery)	609	676	482	553	627	751	887
Fragmenting of kidney stone (urology)	666	1,050	601	712	859	1,163	1,463
Vasectomy (urology)	904	576	301	442	564	694	809
Cataract removal and prosthetic lens (ophthalmology)	661	917	626	696	835	1,004	1,283
Intensity-modulated radiation therapy (radiation oncology)	153	881	549	637	769	1,008	1,210
Insertion of intracoronary stent (cardiology)	546	1,282	865	988	1,159	1,449	1,789

SOURCE Authors' analysis of Truven Health Analytics MarketScan Commercial Claims and Encounters data for 2010.

tively). There was also considerable variation across counties within each procedure-specialty combination. The mean price in the ninetieth-percentile county was 1.8–2.7 times higher than in the tenth-percentile county. The seventy-fifth-percentile county was commonly $200–$300 more than the twenty-fifth-percentile county, and in some cases more.

We examined the characteristics of counties with HHIs above the median HHI and counties at or below the median. Results are available in the Appendix for two representative procedure-specialty combinations[21] (patterns for other procedure-specialties were similar). Counties where the mean practice HHI was above the median had significantly smaller populations than areas with HHIs below the median and were more likely to be outside of a Metropolitan Statistical Area. This is expected, since more urban and highly populated areas typically have more physicians serving the same area, which can easily foster competition among practices, and this pattern is also seen in hospital competition.[32] There are also other less pronounced but still significant differences. Counties with higher physician HHIs tended to have more hospitals per population, lower income and educational attainment, higher Medicare enrollment, higher hospital

HHIs, and lower practice costs compared to counties with lower physician HHIs. The place of service also varied by procedure and with the HHI.

After adjustment for these characteristics, mean prices were frequently higher in areas with more concentration (Exhibit 4). There were significant ($p < 0.05$) variations in prices across the HHI quartiles in twelve of the fifteen procedure-specialty combinations studied. In eleven of these twelve, the price in the highest-HHI quartile, with the most concentration, was higher than the price in the lowest-HHI quartile. In addition to testing whether there were significant variations across all four HHI quartiles, we also separately tested whether the price in the highest-HHI quartile was itself significantly different from the price in the lowest-HHI quartile. The difference was significant ($p < 0.05$) in ten of fifteen procedure-specialty combinations.

Many of the price differences are quite large. In cases where the price in the highest-HHI-quartile counties is significantly different from the price in the lowest-HHI quartile counties, adjusted prices are 13–26 percent higher than in the lowest-HHI-quartile counties, with differences of $94–$291 per procedure. Differences between adjusted prices in the lowest- and highest-HHI

EXHIBIT 4

Variations In Prices For Procedure-Specialty Combinations According To Herfindahl-Hirschman Index (HHI) Quartile, After Adjustment For Other County Characteristics

| Procedure (specialty) | HHI quartile ($) | | | | Ratio, quartile 4 to quartile 1 |
	1 (most competitive)	2	3	4 (least competitive)	
Mohs surgery for skin tumor (dermatology)***	702	659	737	797	1.13**
Total knee replacement (orthopedics)****	2,259	2,078	2,428	2,440	1.08*
Shoulder arthroscopy and surgery (orthopedics)*	760	700	816	756	0.99
Knee arthroscopy and surgery (orthopedics)****	887	849	970	1,036	1.17****
Repair of nasal septum (otolaryngology)**	723	746	732	817	1.13**
Laparoscopic appendectomy (general surgery)***	779	785	797	904	1.16****
Colonoscopy with lesion removal (gastroenterology)****	539	548	602	656	1.22****
Laparoscopic cholecystectomy (general surgery)****	946	992	1,025	1,175	1.24****
Laparoscopic cholecystectomy with imaging (general surgery)****	972	1,086	1,079	1,225	1.26****
Inguinal hernia repair (general surgery)****	612	668	660	765	1.25****
Fragmenting of kidney stone (urology)*	1,041	954	1,067	1,139	1.09
Vasectomy (urology)***	578	554	605	567	0.98
Cataract removal and prosthetic lens (ophthalmology)***	856	863	919	1,031	1.20***
Intensity-modulated radiation therapy (radiation oncology)	932	813	859	916	0.98
Insertion of intracoronary stent (cardiology)****	$1,163	$1,193	$1,318	$1,454	1.25****

SOURCE Authors' analysis of Truven Health Analytics MarketScan Commercial Claims and Encounters data for 2010 and HHIs derived from Medicare claims data for 2009. **NOTES** Prices reported are derived from regression models that hold fixed the county characteristics listed in the text and shown in the Appendix (see Note 20 in text). Significance in procedure-specialty categories is for tests of equality across quartiles; significance in the ratio column indicates difference from a ratio of 1.00. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$ ****$p < 0.001$

counties are further illustrated in the Appendix.[21]

Discussion

More concentration among physician practices, which implies less competition, is associated with higher prices paid by private PPOs to physicians for most of the fifteen common and costly procedures we examined. The price variations we observed were statistically, as well as financially, significant. Across the procedure-specialty combinations we studied, our estimates imply that the level of competition observed in the highest quartile of the HHI distribution was associated with prices often 20 percent higher than in the lowest quartile of the HHI distribution. Our findings are consistent with the hypothesis that greater market power allows physicians to bargain for higher prices from private insurance companies.

A relationship between competition and price was not apparent for all procedures, most notably intensity-modulated radiation therapy performed by radiation oncologists. We speculate that this may be associated with the relative rarity of providers of this therapy. While our database contained information about more than 20,000 intensity-modulated radiation therapy procedures, these were performed in only 153 counties. Competition between radiation oncologists may vary, but variation in competition for intensity-modulated radiation therapy specifically may be much more limited, and this may limit the relationship we observed between physician HHI and price. The relationship between HHI and price was also statistically insignificant for fragmenting of kidney stones and shoulder arthroscopy, although in both of these cases there was still a general upward trend in prices from the lower- to the higher-HHI-quartile categories.

The overall finding of higher prices associated with more concentrated markets spanned a variety of very common and expensive procedures across several specialties, both surgical and medical. This extends previous results that have focused on prices for evaluation and management services[10] and orthopedics and cardiology services.[9] The prevalence of the patterns observed here makes clearer the breadth of the association across a range of procedures and settings and its presence in high-price services.

Although this was not our main focus, we frequently found market concentration levels that appear high relative to the commonly encountered view that HHI levels above 2,500 are concerning. HHIs were 2,500 or more in more than half of counties studied among the chosen procedures and specialties.

This analysis did not directly address the issue of insurer competition, which may also affect prices for physician services. Sensitivity analyses suggested that variations in insurer competition were not likely to significantly affect our conclusions about relationships between physician competition and prices. Nonetheless, insurer competition may independently influence prices,[8] and it is possible that rising levels of insurer concentration could contribute to inefficient outcomes for the health care system and deserve policy scrutiny.

We were unable to measure quality of care in this study, and further information about quality would be important for a complete interpretation of the results. If larger physician organizations systematically produce higher-quality care and have higher HHIs, then a positive association between HHIs and prices may be justified.[4] Evidence from other sources examining links between practice organization and quality is evolving and not entirely clear. Some studies suggest that larger practices may have better outcomes or be better able to take actions such as adopting potentially beneficial practice technologies or process improvements, but this literature is not unanimous, and relationships may vary from one case to another.[4–7,33]

Conclusion

The existence of an association between concentration and prices should underscore the importance of continued attention to the challenges posed by provider consolidation, especially given that consolidation among physician groups is likely to continue.[12,34] Increased health care expenditures attributable to higher prices without improved outcomes for patients would generate inefficiency in the US health care system at a time when the opposite is badly needed. Policies that balance any benefits of larger organizations with the potential for problematic price increases, possibly including appropriate antitrust oversight, are needed as the country seeks to ensure efficient, high-quality patient care. ∎

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HEALTH INSURANCE MARKETPLACE:
UNINSURED POPULATIONS ELIGIBLE TO ENROLL FOR 2016

By: Kenneth Finegold, Kelsey Avery, Bula Ghose, and Caryn Marks

October 15, 2015

A central aim of the Affordable Care Act is to increase the number of Americans with health insurance coverage. Over the past two years, significant progress has been made towards this goal as measured by the decline in the proportion of Americans who lack health insurance coverage, often called the "uninsured rate." Using data from the Gallup-Healthways Well-Being Index (Gallup-Healthways WBI), ASPE recently estimated that 17.6 million uninsured people have gained health insurance coverage as several of the Affordable Care Act's coverage provisions took effect.[1]

In this brief, we use recently released data from the National Health Interview Survey (NHIS) to examine the composition of people that remained uninsured though the first quarter of 2015 and may be eligible to purchase insurance coverage from a Qualified Health Plan (QHP) through the Marketplaces ("QHP-eligible uninsured"). It also presents data on the attitudes and experiences of the uninsured, drawn from a number of private surveys.

In a separate ASPE report, "How Many Individuals Might Have Marketplace Coverage at the End of 2016?,"[2] we estimate that there are 10.5 million QHP-eligible uninsured Americans. This estimate uses both the 2013 American Community Survey (ACS) and results from the Gallup-Healthways WBI through the second quarter of 2015. This number represents our best estimate of the number of QHP-eligible uninsured going into the third Open Enrollment Period. The estimates of the number of QHP-eligible uninsured (using the ACS and Gallup-Healthways WBI) and the composition of that population (using the NHIS) come from distinct data sources selected to best match the objectives of each analysis. As a result, these estimates are not fully consistent with each other.

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[1] Office of the Assistant Secretary for Planning and Evaluation. "Health Insurance Coverage and the Affordable Care Act." September 2015. Available at: http://aspe.hhs.gov/health-insurance-coverage-and-affordable-care-act-aspe-issue-brief-september-2015.

[2] Office of the Assistant Secretary for Planning and Evaluation. "How Many Individuals Might Have Marketplace Coverage at the End of 2016?" October 15, 2015. Available at: http://aspe.hhs.gov/pdf-report/how-many-individuals-might-have-marketplace-coverage-at-the-end-of-2016.

Key Findings:

Likely QHP-eligible Uninsured Individuals:

- **Income:** Nearly half (48 percent) of QHP-eligible uninsured individuals have family incomes between 100% and 250% of the Federal Poverty Level (FPL) and may qualify for the advance payments of the premium tax credit (APTC) and cost-sharing reductions (CSR). About 30 percent have incomes between 250% and 400% FPL and may qualify for APTC. The remaining 22 percent have family incomes above 400% FPL.

- **Gender:** An estimated 57 percent of the QHP-eligible uninsured are men.

- **Age:** Almost half of QHP-eligible uninsured individuals are between the ages of 18 and 34.

- **Race:** Approximately one-third of the QHP-eligible uninsured are people of color: 19 percent are Hispanic, 14 percent are African American, and 2 percent are Asian American.

- **Gender and Race:** Nearly 35 percent of the QHP-eligible uninsured are White males, 10.6 percent are Hispanic males, and 26.6 percent are White females.

All Uninsured Individuals:

- **Financial Circumstances:** Nearly 8 in 10 of all people without insurance have less than $1,000 in savings and about half have less than $100 in savings.

- **Views about Insurance:** Nearly 75 percent of all uninsured people think that having health insurance is important.

- **Perceptions of Affordability:** People without health insurance are primarily concerned with the affordability of coverage.

- **Understanding of the Health Insurance Marketplace:** Nearly three in five of all people without health insurance do not understand or are unaware of the premium tax credits.

Overview

Recent analysis of Gallup-Healthways WBI data suggests that 17.6 million previously uninsured people have gained coverage as several of the Affordable Care Act's coverage provisions have taken effect.[3] The increases in coverage reflect individuals newly covered through the Marketplaces, Medicaid, the Children's Health Insurance Program (CHIP), the expansion of dependent coverage, and other sources such as employer sponsored insurance. The next Health Insurance Marketplace Open Enrollment Period, from November 1, 2015 to January 31, 2016, will offer an opportunity to continue to provide coverage for more individuals and to reduce the number of uninsured even further.[4]

This brief uses the most recent data from the National Health Interview Survey (NHIS) to examine the composition of people that remained uninsured though the first quarter of 2015, and who may be eligible to purchase insurance coverage from a Qualified Health Plan (QHP) through the Marketplaces ("QHP-eligible uninsured"). The NHIS is a federal survey designed to provide reliable estimates over time and is considered to be the gold standard for measuring the number and characteristics of the uninsured.

We use the term "QHP-eligible uninsured" to refer to those who are most likely to have or shop for coverage in the Marketplaces. For the purposes of this analysis, we consider QHP-eligible uninsured to be any nonelderly, lawfully present individual who is uninsured and has a family income: (a) above 138% of the Federal Poverty Level (FPL) for adults in Medicaid expansion states or at least 100% FPL for adults in states that have not yet expanded, or (b) above 250% FPL for children in any state. Not all uninsured individuals who are "QHP-eligible" are necessarily eligible for coverage or financial assistance through the Marketplaces.[5] For more information about eligibility to purchase coverage in the Marketplaces, see https://www.healthcare.gov/quick-guide/eligibility/.

In Section I of this brief, we analyze selected characteristics of the uninsured who may be eligible for Marketplace coverage. Our analysis is based on NHIS data for January to March 2015.

In Section II, we present data on the attitudes and experiences of the uninsured drawn from a number of private surveys of low and middle-income populations. These analyses typically do not make adjustments to remove immigrants who are not lawfully present (who are not eligible for Medicaid or Marketplace coverage) or distinguish between individuals who would be eligible

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[3] Gallup-Healthways WBI data are through 9/12/2015. Office of the Assistant Secretary for Planning and Evaluation. "Health Insurance Coverage and the Affordable Care Act." September 2015. Available at: http://aspe.hhs.gov/health-insurance-coverage-and-affordable-care-act-aspe-issue-brief-september-2015.

[4] Individuals who meet the criteria for Special Enrollment Periods, or who qualify for Medicaid or CHIP, can enroll at any time.

[5] For the purposes of this brief, we have not included within our definition of "QHP-eligible" individuals whose family incomes are in the coverage gap (family incomes above Medicaid eligibility and below financial assistance eligibility through the Marketplaces) in states that have not yet expanded Medicaid, as these individuals are unlikely to purchase coverage through the Marketplaces. We also do not include in our definition lawfully present immigrants with family incomes below 100% FPL. Likewise, there are individuals with current health coverage who may purchase coverage through the Marketplace—for example, individuals with unaffordable or non-minimum value coverage who could drop it and enroll in a Marketplace plan—who are not included in the QHP-eligible uninsured estimates presented here.

for different sources of coverage (Marketplace, Medicaid/CHIP, or in the Medicaid coverage gap in states that have not expanded). However, we believe the findings gleaned from these survey data provide insights that may apply to the likely QHP-eligible population.

### SECTION I: CHARACTERISTICS OF THE QHP-ELIGIBLE UNINSURED

Using NHIS data from the first quarter of 2015, **Figure 1** below provides a demographic profile of the remaining uninsured:

- Nearly half of the uninsured (49 percent) are likely QHP-eligible.[6] This group is the primary focus of this brief.
- Approximately 30 percent are potentially eligible for the Medicaid program:
  - About 12 percent are adults who live in Medicaid expansion states and have family incomes below 138% FPL.
  - About 11 percent are adults who live in states that have not yet expanded Medicaid, have family incomes below 100% FPL, and who would potentially be eligible for Medicaid if their state expanded eligibility (also called the Medicaid coverage gap).[7]
  - About 7 percent are children who are potentially eligible for Medicaid or CHIP (family incomes below 250% FPL).
- About 21 percent are not eligible for these programs because they are not lawfully present in the U.S.

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[6] Rachel Garfield, Anthony Damico, Cynthia Cox, Gary Claxton, and Larry Levitt, "New Estimates of Eligibility for ACA Coverage among the Uninsured," released by the Kaiser Family Foundation on October 13, 2015 (http://kff.org/uninsured/issue-brief/new-estimates-of-eligibility-for-aca-coverage-among-the-uninsured/), analyzes the eligibility of the uninsured for insurance affordability programs in ways that are somewhat similar to the estimates presented in Figure 1. Their analyses are based on Calendar Year 2014 data from the March 2015 Current Population Survey Annual Social and Economic Supplement (CPS ASEC), which does not capture the gains in coverage in 2015, or the changes in the distribution of the uninsured because the 2015 gains have been concentrated among those eligible for Marketplace subsidies or Medicaid expansion. Because higher-income individuals tend to be uninsured for shorter periods, the CPS ASEC estimate of the full-year uninsured used for the Kaiser Family Foundation analysis has a different income distribution than the NHIS, which captures the uninsured at the time of interview. Both the ASPE and Kaiser Family Foundation analyses suggest that nearly half the nonelderly uninsured are eligible to select Marketplace plans.

[7] Adults who live in states that have not yet expanded and have family incomes from 100% to 138% FPL are considered for the purposes of this brief to be likely eligible for Marketplace coverage.

Figure 1. Nonelderly Uninsured, by Eligibility for Insurance Affordability Programs
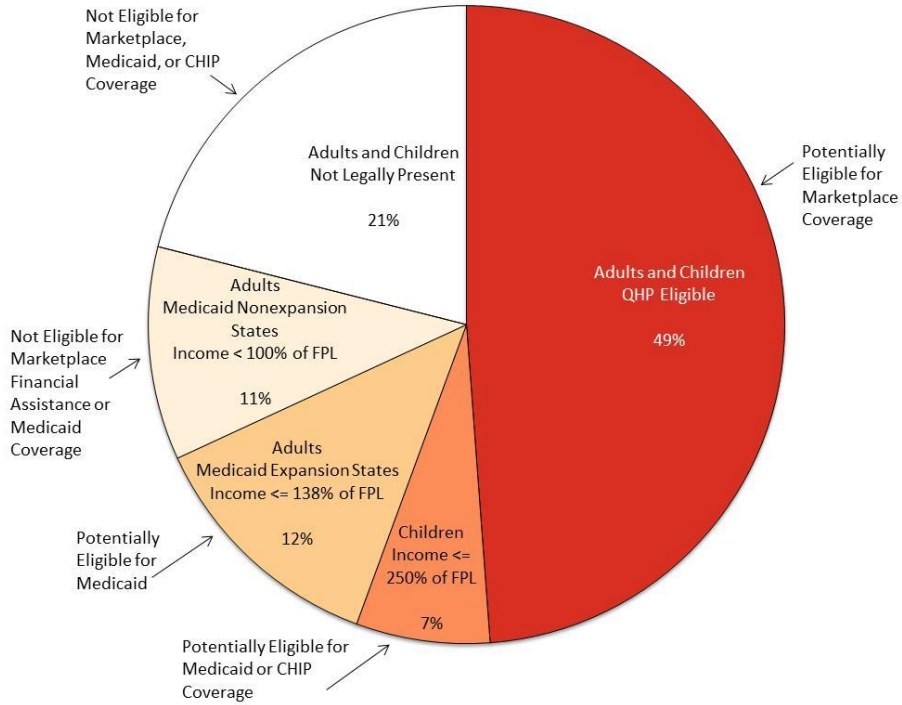
Source: ASPE analysis of National Health Interview Survey (NHIS) Preliminary Quarterly Microdata Files for January-March 2015, adjusted using imputations of immigration status from ASPE's TRIM3 microsimulation model.

Figures 2, 3, 4, and 5 below illustrate the distribution of the QHP-eligible uninsured by various demographic characteristics.

Of the QHP-eligible uninsured:

- **Income:** Nearly half have incomes between 100% and 250% FPL, making them likely to be eligible for both APTC and CSR in the Marketplaces (Figure 2).

- **Employment:** More than 70 percent are employed.

- **Education:** Approximately half have education beyond high school. Only 13 percent do not have either a high school diploma or a GED.

Figure 2. Distribution of QHP-Eligible Uninsured by Income

■ 100-138% FPL   ■ 139-250%FPL
■ 250-399% FPL   □ >400% FPL
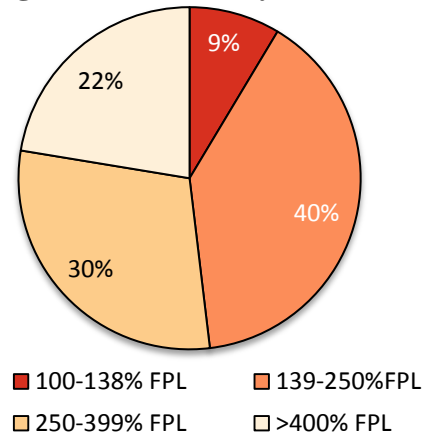
NOTE: Totals add up to more than 100% due to rounding

- **Race:** 61 percent are White, 19 percent are Hispanic, and 14 percent are African American (Figure 3).
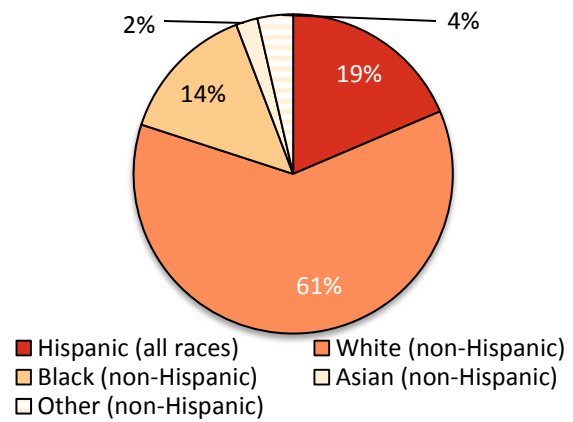
- **Health status:** Nearly two-thirds are in excellent or very good health, compared with 8 percent whose reported health is fair or poor.

Figure 3. Distribution of QHP-Eligible Uninsured by Race

Legend:
- Hispanic (all races)
- White (non-Hispanic)
- Black (non-Hispanic)
- Asian (non-Hispanic)
- Other (non-Hispanic)

Figures 4 and 5 also illustrate key differences between the QHP-eligible uninsured and the general nonelderly population:

- **Income:** QHP-eligible uninsured individuals are less likely to have family incomes above 400% FPL than the nonelderly (Figure 4).
- **Employment:** QHP-eligible uninsured adults are more than twice as likely as all nonelderly adults to be unemployed, as opposed to employed or not in the labor force.
- **Marital Status:** QHP-eligible uninsured adults are less likely to be single compared to the general nonelderly adult population.

Figure 4. Distribution by Income:
QHP-Eligible Uninsured vs. General Nonelderly Population

Legend:
- QHP-Eligible Uninsured
- General Nonelderly Population
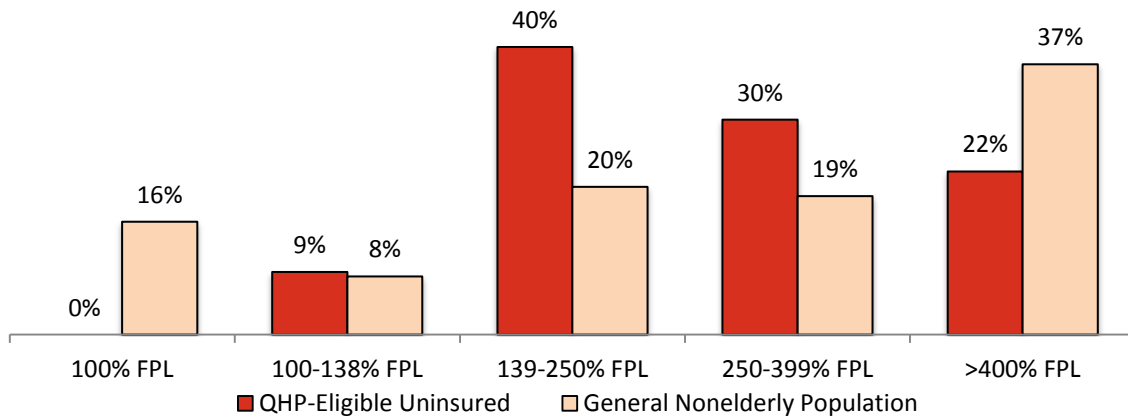
- **Education:** QHP-eligible uninsured adults are about as likely as all nonelderly adults to have less than a high school education, but more likely to have only a high school education or GED, and less likely to have gone beyond high school (Figure 5).
- **Race:** The QHP-eligible uninsured population is more likely to be African American, and less likely to be Asian American, than the general nonelderly population. The proportions of individuals who are White or Hispanic are about the same among the QHP-eligible as in the general population.
- **Metropolitan status:** QHP-eligible uninsured individuals are more likely than all nonelderly adults to be residents of nonmetropolitan or rural areas.

**Figure 5. Distribution by Education:
QHP-Eligible Uninsured vs. General Nonelderly Population**
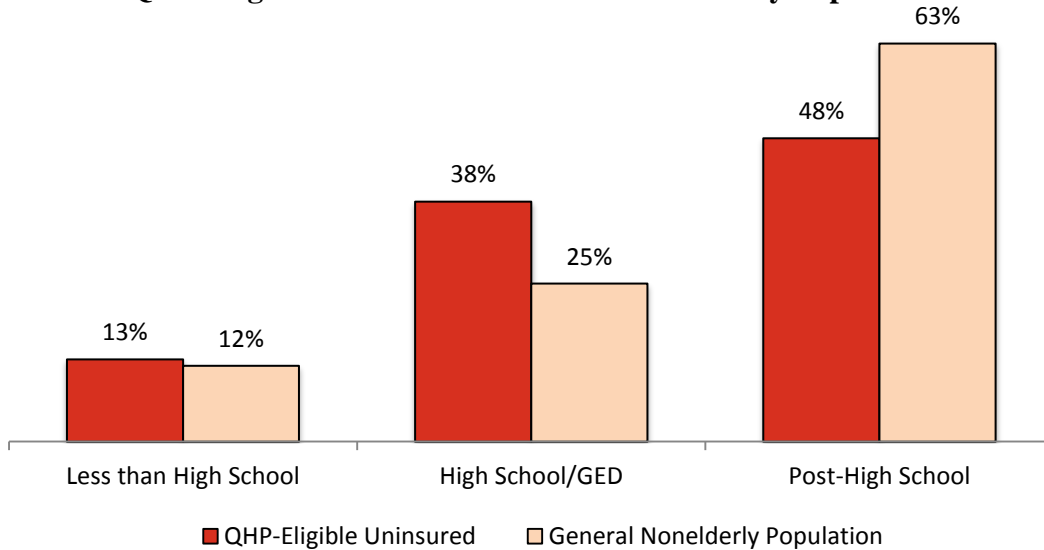

Table 1 presents selected characteristics of the estimated nonelderly uninsured population who may be eligible for Marketplace coverage and the general population of nonelderly individuals. Selected characteristics examined include: income, age, gender, education, health status, race, metropolitan status, employment status, marital status, and usual source of care.

Table 1. QHP-Eligible Nonelderly Uninsured and All Nonelderly, January-March 2015, by Selected Characteristics

Variable	QHP-Eligible Uninsured (Percentage)	General Nonelderly Population (Percentage)
Family Income		
<100% FPL	N/A	15.5
100-138% FPL	8.6	8.0
139-250% FPL	39.5	20.3
250-399% FPL	29.5	19.0
>400% FPL	22.4	37.1
Total	100.0	100.0
Age		
0-17	7.5	27.3
18-25	20.5	13.0
26-34	25.9	14.0
35-54	34.6	30.7
55-64	11.5	14.9
Total	100.0	100.0
Gender		
Male	56.9	49.6
Female	43.1	50.4
Total	100.0	100.0
Race / Ethnicity		
Hispanic (all races)	18.6	19.2
White (non-Hispanic)	61.4	59.5
Black (non-Hispanic)	14.2	12.7
Asian (non-Hispanic)	2.2	5.7
Other (non-Hispanic)	3.6	2.9
Total	100.0	100.0
Education Level (ages 18-64 only)		
Less than High School	13.4	12.3
High School/GED	38.3	24.8
Post-High School	48.3	62.9
Total	100.0	100.0

Table 1. QHP-Eligible Nonelderly Uninsured and All Nonelderly, January-March 2015, by Selected Characteristics (cont.)

Variable	QHP-Eligible Uninsured (Percentage)	General Nonelderly Population (Percentage)
Health Status*		
Excellent	34.1	40.3
Very Good	30.2	30.1
Good	27.6	21.7
Fair/Poor	8.0	7.9
Total	100.0	100.0
Metropolitan Status		
Metropolitan	80.8	86.5
Nonmetropolitan	19.2	13.5
Total	100.0	100.0
Employment Status (ages 18-64 only)		
Employed	72.2	72.0
Unemployed	10.5	5.0
Not in Labor Force	17.3	23.0
Total	100.0	100.0
Marital Status (ages 18-64 only)		
Married	36.7	54.2
Not Married	63.3	45.8
Total	100.0	100.0
Has Usual Source of Care*		
Yes	51.4	86.4
No	48.6	13.6
Total	100.0	100.0

* Not adjusted for immigration status

Source: ASPE analysis of National Health Interview Survey (NHIS) Preliminary Quarterly Microdata Files for January-March 2015, adjusted using imputations of immigration status from ASPE's TRIM3 microsimulation model.

Table 2 presents additional analysis of the relationship between race/ethnicity and gender among the QHP-eligible uninsured. Overall, men account for 57 percent of the QHP-eligible population. The proportion of men among QHP-eligible Hispanics and Whites is similar to the proportion of men in the overall QHP-eligible population, but is higher (60 percent) among African Americans and lower (44 percent) among Asian Americans. More than one-third of the QHP-eligible uninsured are non-Hispanic White males.

Table 2. QHP-Eligible Nonelderly Uninsured, January-March 2015, by Race/Ethnicity and Gender

Category	Percentage of Race/Ethnicity Group	Percentage of Total
Male		
Hispanic (all races)	56.9	10.6
White (non-Hispanic)	56.8	34.9
Black (non-Hispanic)	59.6	8.5
Asian (non-Hispanic)	44.2	1.0
Other (non-Hispanic)	57.3	2.1
Total	56.9	56.9
Female		
Hispanic (all races)	43.1	8.0
White (non-Hispanic)	43.2	26.6
Black (non-Hispanic)	40.4	5.7
Asian (non-Hispanic)	55.8	1.2
Other (non-Hispanic)	42.7	1.5
Total	43.1	43.1

Source: ASPE analysis of National Health Interview Survey (NHIS) Preliminary Quarterly Microdata Files for January-March 2015, adjusted using imputations of immigration status from ASPE's TRIM3 microsimulation model.

SECTION II: ATTITUDES AND EXPERIENCES OF THE UNINSURED

Surveys of uninsured people fielded by the Robert Wood Johnson Foundation, the Kaiser Family Foundation, the Commonwealth Fund, McKinsey & Company, and the Urban Institute all provide valuable information about the attitudes and experiences of the remaining uninsured. New content areas that are not measured by federal surveys but are included in private surveys include topics such as: perceptions of affordability; experiences with and attitudes towards health insurance; and awareness of new coverage options and financial assistance available under the Affordable Care Act.

These surveys were fielded during or after the 2015 Open Enrollment Period and together provide rich information on specific populations that are the focus for the 2016 Open Enrollment Period. Each survey cited (see Table 3) examined different populations over different periods of

time with different survey instruments. The definition of being uninsured varies across surveys and many report findings collectively for those eligible for Medicaid and the Marketplaces. [8] Many uninsured people are eligible for Medicaid or CHIP, or are immigrants who are not lawfully present (and therefore not eligible for Marketplace, Medicaid, or CHIP coverage), and their attitudes and experiences may be somewhat different from those whose incomes and immigration status make them eligible for Marketplace or Medicaid/CHIP coverage.

Table 3. Private Surveys of the Uninsured

Source	Time Period	Sample	Sample Size[9]
Robert Wood Johnson Foundation National Survey of Uninsured Adults	May 2015	Uninsured non-elderly adults	1,270
Kaiser Family Foundation Survey of Low-Income Americans and the ACA	Fall 2014 (September – December)	19-64 year olds with various types of coverage	10,502
Commonwealth Fund ACA Tracking Survey	March – May 2015	19-64 year olds with various types of coverage	4,881
McKinsey & Company Consumer Health Insights Survey	February 2015	QHP-eligible uninsured and non-elderly adults with coverage in the individual market	3,007
Urban Institute Health Reform Monitoring Survey	March 2015	Uninsured non-elderly adults	7,500

Financial Challenges and the Priorities of Uninsured Individuals

People who are uninsured often experience financial barriers to coverage and may place other priorities over obtaining health insurance.

- Only 26 percent of those who are uninsured say that they are doing well financially. Nearly 80 percent have less than $1,000 in savings and about half have less than $100 in savings.[10]
- More than half of people who are uninsured feel financially insecure[11] and half had difficulty affording basic necessities such as food or housing in the past year.[12]

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[8] We have interpreted survey findings in a manner that is consistent with each individual survey, but for simplicity use the term uninsured broadly in this discussion. We recommend seeing the sources cited in Table 3 for additional details on methodologies, instruments, timeframes, samples, and definitions. A recent overview by the Urban Institute also provides comparative information on some of the surveys: Michael Karpman, Sharon K. Long, and Michael Huntress, "Nonfederal Surveys Fill a Gap in Data on ACA," March 2015, available at http://www.urban.org/research/publication/nonfederal-surveys-fill-gap-data-aca.

[9] Sample size listed is for the entire survey sample, which may include individuals who have coverage.

[10] Robert Wood Johnson Foundation, "Understanding the Uninsured Now." June 2015. Available at: http://www.rwjf.org/en/library/research/2015/06/understanding-the-uninsured-nRow.html.

[11] Rachel Garfield and Katherine Young, "How Does Gaining Coverage Affect People's Lives? Access, Utilization, and Financial Security among Newly Insured Adults." Kaiser Family Foundation, June 19, 2015. Available at: http://kff.org/health-reform/issue-brief/how-does-gaining-coverage-affect-peoples-lives-access-utilization-and-financial-security-among-newly-insured-adults/.

- When asked what they would do if they were to become better off financially, many uninsured people say they would pay down their debt, put money into savings, or make home or car repairs before buying health insurance.[13]

Impacts of Being Uninsured on Use of Health Care

Lack of health insurance coverage affects individuals' access to and use of health care services.

- Most people without health insurance are not confident they can get or afford routine or major medical care without insurance.[14,15]
- Some uninsured individuals obtain services by paying out of pocket and/or using free or low-cost clinics.[16,17] However, one survey indicated that only 28 percent of those who are uninsured and have ongoing medical care needs feel that they are getting all or most of the care that they need.[18]
- People who are uninsured are much less likely than their insured counterparts to receive a check-up or preventive care visit (33 percent versus 74 percent of adults with employer-sponsored insurance) and more likely to be unable to afford prescription drugs (21 percent versus 4 percent of adults with employer-sponsored insurance).[19]
- Furthermore, 33 percent of the uninsured have postponed care and never received it, and 34 percent of those who postponed care did so because they could not afford the cost.[20]
- Uninsured individuals experience more problems paying medical and other bills than their insured counterparts, including having medical bills use up all or most of their savings,

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[12] Adele Shartzer, Genevieve M. Kenney, Sharon K. Long, and Yvette Odu, "A Look at Remaining Uninsured Adults as of March 2015." Urban Institute, August 18, 2015. Available at: http://hrms.urban.org/briefs/A-Look-at-Remaining-Uninsured-Adults-as-of-March-2015.html.

[13] Robert Wood Johnson Foundation, "Understanding the Uninsured Now." June 2015. Available at: http://www.rwjf.org/en/library/research/2015/06/understanding-the-uninsured-now.html.

[14] Rachel Garfield and Katherine Young, "How Does Gaining Coverage Affect People's Lives? Access, Utilization, and Financial Security among Newly Insured Adults." Kaiser Family Foundation, June 19, 2015. Available at: http://kff.org/health-reform/issue-brief/how-does-gaining-coverage-affect-peoples-lives-access-utilization-and-financial-security-among-newly-insured-adults/.

[15] Sara R. Collins, Petra W. Rasmussen, Michelle M. Doty, and Sophie Beutel, "Americans' Experiences with Marketplace and Medicaid Coverage." Commonwealth Fund, June 2015. Available at: http://www.commonwealthfund.org/publications/issue-briefs/2015/jun/experiences-marketplace-and-medicaid.

[16] Rachel Garfield and Katherine Young, "How Does Gaining Coverage Affect People's Lives? Access, Utilization, and Financial Security among Newly Insured Adults." Kaiser Family Foundation, June 19, 2015. Available at: http://kff.org/health-reform/issue-brief/how-does-gaining-coverage-affect-peoples-lives-access-utilization-and-financial-security-among-newly-insured-adults/.

[17] McKinsey & Company. "2015 OEP: Insight into Consumer Behavior." March 2015. Available at: http://healthcare.mckinsey.com/2015-oep-insight-consumer-behavior.

[18] Robert Wood Johnson Foundation, "Understanding the Uninsured Now." June 2015. Available at: http://www.rwjf.org/en/library/research/2015/06/understanding-the-uninsured-now.html.

[19] Kaiser Family Foundation. "Key Facts about the Uninsured Population." October 5, 2015. Available at: http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/. Sommers et al. found significant decreases in the proportion of individuals who said they did not have easy access to medicine after the first Marketplace Open Enrollment Period and for low-income individuals in states expanding Medicaid, but not for low-income individuals in states that have not yet expanded. Benjamin D. Sommers, Munira Z. Gunja, Kenneth Finegold, and Thomas Musco, "Changes in Self-reported Insurance Coverage, Access to Care, and Health Under the Affordable Care Act," *Journal of the American Medical Association*, 2015, 314(4):366-374.

[20] Rachel Garfield and Katherine Young, "How Does Gaining Coverage Affect People's Lives? Access, Utilization, and Financial Security among Newly Insured Adults." Kaiser Family Foundation, June 19, 2015. Available at: http://kff.org/health-reform/issue-brief/how-does-gaining-coverage-affect-peoples-lives-access-utilization-and-financial-security-among-newly-insured-adults/.

having problems paying for basic necessities, or having their bill sent to a collection agency.[21]

Concerns about Affordability and Knowledge of Subsidies

According to the Robert Wood Johnson Foundation, nearly 75 percent of uninsured people think that having health insurance is important. Fewer than 20 percent of those who are uninsured say they are uninsured because they do not want insurance.[22]

- Nearly 60 percent of those without insurance do not understand or have not heard of APTC.[23]

People without health insurance are primarily concerned with the affordability of coverage.

- A sizeable proportion of those without insurance have not shopped for or obtained coverage because they did not believe coverage was affordable; however, many of the uninsured also are not aware of their eligibility for free or low-cost coverage.[24,25,26,27,28]
- In addition, among uninsured adults surveyed by the Kaiser Family Foundation who sought coverage and said it was too expensive, 42 percent appeared likely eligible for APTC and 14 percent were potentially eligible for Medicaid.[29]

People without health insurance may also experience gaps in eligibility or confusion about their eligibility.

- About 40 percent of the uninsured who sought coverage in 2014 but did not enroll said that they were told that they were ineligible for coverage, yet nearly half appeared likely eligible for APTC (30 percent) or Medicaid (19 percent) at the time that they were surveyed.[30]
- Furthermore, 60 percent of the uninsured have not heard about, or are not sure if they have heard about, Special Enrollment Periods (SEPs).[31]

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[21] Ibid.

[22] Adele Shartzer, Genevieve M. Kenney, Sharon K. Long, and Yvette Odu, "A Look at Remaining Uninsured Adults as of March 2015." Urban Institute, August 18, 2015. Available at: http://hrms.urban.org/briefs/A-Look-at-Remaining-Uninsured-Adults-as-of-March-2015.html.

[23] Robert Wood Johnson Foundation, "Understanding the Uninsured Now." June 2015. Available at: http://www.rwjf.org/en/library/research/2015/06/understanding-the-uninsured-now.html.

[24] Ibid.

[25] Rachel Garfield and Katherine Young, "How Does Gaining Coverage Affect People's Lives? Access, Utilization, and Financial Security among Newly Insured Adults." Kaiser Family Foundation, June 19, 2015. Available at: http://kff.org/health-reform/issue-brief/how-does-gaining-coverage-affect-peoples-lives-access-utilization-and-financial-security-among-newly-insured-adults/.

[26] Adele Shartzer, Genevieve M. Kenney, Sharon K. Long, and Yvette Odu, "A Look at Remaining Uninsured Adults as of March 2015." Urban Institute, August 18, 2015. Available at: http://hrms.urban.org/briefs/A-Look-at-Remaining-Uninsured-Adults-as-of-March-2015.html.

[27] Sara R. Collins, Petra W. Rasmussen, Michelle M. Doty, and Sophie Beutel, "Americans' Experiences with Marketplace and Medicaid Coverage." Commonwealth Fund, June 2015. Available at: http://www.commonwealthfund.org/publications/issue-briefs/2015/jun/experiences-marketplace-and-medicaid.

[28] McKinsey & Company. "2015 OEP: Insight into Consumer Behavior." March 2015. Available at: http://healthcare.mckinsey.com/2015-oep-insight-consumer-behavior.

[29] Rachel Garfield and Katherine Young, "Adults who Remained Uninsured at the End of 2014." Kaiser Family Foundation, January 29, 2015. Available at: http://kff.org/report-section/adults-who-remained-uninsured-at-the-end-of-2014-issue-brief/.

[30] Ibid.

[31] Robert Wood Johnson Foundation, "Understanding the Uninsured Now." June 2015. Available at: http://www.rwjf.org/en/library/research/2015/06/understanding-the-uninsured-now.html.

Awareness of Penalties for Not Buying Insurance

Uninsured individuals may be more inclined to enroll in coverage for the 2016 coverage year as a result of the individual shared responsibility payment (tax penalty), which is the larger of 2.5 percent of yearly income or $695 per person ($347.50 per child under 18) in 2016.

Many of the uninsured are not aware of, or know very little about the tax penalty.
- Approximately 40 percent of uninsured persons were unaware of the penalty.[32]
- In December 2014, approximately 40 percent of uninsured persons were unsure if they would pay the penalty for 2014.[33]
- When informed about the penalty, 30 percent of the uninsured who were previously unaware of the penalty stated that they were more likely to enroll.[34]

SECTION III: CONCLUSION

Data from the first quarter of 2015 from the NHIS and findings from private surveys provide insight into the demographic characteristics, financial circumstances, and attitudes towards health insurance among those who do not have coverage. We estimate that nearly half of the uninsured population that is QHP-eligible has family incomes between 100% and 250% FPL, making them likely eligible for APTC and CSR. Almost half of the uninsured who qualify for Marketplace plans are between the ages of 18 and 34. More than 30 percent are people of color: 19 percent are Hispanic, 14 percent are African- American, and about 2 percent are Asian American.

Private surveys suggest that the uninsured value insurance but have financial circumstances, perceptions of affordability, and knowledge gaps that are barriers to enrolling in coverage. Many people who are uninsured have less than $1,000 in savings and choose other financial priorities over purchasing health insurance. Even though they do not currently have health insurance, nearly three-quarters of those without coverage say that they think health insurance is important. Affordability of coverage is of high concern to those without health insurance, yet many lack knowledge about subsidies that reduce the cost of purchasing health insurance and their potential eligibility for this financial assistance. In addition, approximately 40 percent of the uninsured are not aware of or know very little about the tax penalty.

The next Health Insurance Marketplace Open Enrollment Period, from November 1, 2015 to January 31, 2016, will offer an opportunity to continue to provide coverage for more individuals and to reduce the number of uninsured even further.

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[32] McKinsey & Company. "2015 OEP: Insight into Consumer Behavior." March 2015. Available at: http://healthcare.mckinsey.com/2015-oep-insight-consumer-behavior.
[33] Michael Karpman, Genevieve M. Kenney, Sharon K. Long, and Stephen Zuckerman, "Quick Take: As of December, Many Uninsured Adults Were Not Aware of Tax Penalties for Not Having coverage, the Marketplaces, or the Open Enrollment Deadline." Urban Institute, February 19, 2015. Available at: http://hrms.urban.org/quicktakes/As-of-December-Man-Uninsured-Adults-Were-Not-Aware-of-Tax-Penalties.html.
[34] McKinsey & Company. "2015 OEP: Insight into Consumer Behavior." March 2015. Available at: http://healthcare.mckinsey.com/2015-oep-insight-consumer-behavior.

METHODS APPENDIX

The national estimates for the nonelderly uninsured, for QHP-eligible nonelderly uninsured, and for all nonelderly presented in Figures 1-5 and Tables 1-2 are based on ASPE analysis of National Health Interview Survey Preliminary Quarterly Microdata Files for January-March 2015.[35] For the purposes of this analysis, we consider QHP-eligible uninsured to be any nonelderly, lawfully present individual who is uninsured and has a family income: (a) above 138% of the Federal Poverty Level (FPL) for adults in Medicaid expansion states or at least 100% FPL for adults in states that have not yet expanded, or (b) above 250% FPL for children in any state. Our QHP eligibility definition is not the same as actual eligibility for coverage or financial assistance through the Marketplaces, and is an attempt to identify who is most likely to have or shop for coverage in the Marketplaces. For the purposes of this brief, we have not included within our definition of "QHP eligible" individuals whose family incomes are in the coverage gap (family incomes above Medicaid eligibility and below financial assistance eligibility through the Marketplaces) in states that have not yet expanded Medicaid, as these individuals are unlikely to purchase coverage through the Marketplaces. We also do not include in our definition lawfully present immigrants with family incomes below 100% FPL. The NHIS Preliminary Quarterly Microdata include the variables used for the selected characteristics shown in Figures 2-5 and Tables 1-2.

The NHIS quarterly data do not provide information on citizenship or immigration status. Such information is needed to determine QHP eligibility because immigrants who are not lawfully present are not eligible for Medicaid (except for emergency services), CHIP, or Marketplace coverage. The American Community Survey (ACS) Public Use Microdata Sample (PUMS) data analyzed for this brief include information on place of birth and citizenship but do not distinguish persons who are not lawfully present from legally resident noncitizens. To exclude estimated persons who are not lawfully present from our estimates of the uninsured, we subtracted the estimated number of individuals who are not lawfully present in each category of interest from the NHIS estimates. Estimates for uninsured individuals who are not lawfully present are shown in Figure 1 but this population is not included in the estimates for QHP-eligible uninsured and their characteristics in Figures 2-5 and Tables 1-2.

Our estimates of immigrants who are not lawfully present are based on ASPE analysis of data from the 2013 ACS, using an adjustment methodology based on imputations of immigrant legal status in ASPE's TRIM3 microsimulation model. The TRIM3 imputation methods, originally developed by Jeffrey Passel and Rebecca Clark in the 1990s, assign noncitizens in data from the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) to one of four possible legal statuses: legal permanent resident ("LPR," or "green card" holder); refugee or asylee; nonimmigrant (temporary legal resident, generally in the U.S. with a student visa or work visa); or immigrants who are not lawfully present. Our use of the 2013 ACS data assumes that immigrants who are not lawfully present have not benefited from the coverage gains under the

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[35] Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey Early Release Program. "Preliminary Quarterly Microdata Files: National Health Interview Survey, January–March 2015." August 2015. Available at: http://www.cdc.gov/nchs/data/nhis/earlyrelease/microdata.pdf.

Affordable Care Act since 2013 because they are not eligible for the Marketplace or Medicaid expansion.

Another important limitation of the NHIS estimates is that they measure family income rather than income for the Health Insurance Unit (HIU), which comes closer to the tax concepts used to determine eligibility for Medicaid, CHIP, and the Marketplaces. Family income and HIU income will be the same for many families, but for others the two concepts will produce different results. The income of a young adult living at home, for example, would be counted in family income along with that of parents who might earn more, but the child's and parents' income would be broken out separately in HIU income. Research by the State Health Access Data Assistance Center (SHADAC) suggests that on net, using HIU rather than family income categorizes more individuals below Medicaid income eligibility limits and fewer individuals within the QHP-eligible income range.[36] Data to construct HIU income was not available in NHIS.

ASPE appreciates the assistance of the Centers for Disease Control and Prevention National Center for Health Statistics Research Data Center in facilitating our access to and analysis of the restricted NHIS Preliminary Quarterly Microdata Files. The findings and conclusions in this brief are those of the authors and do not necessarily represent the views of the Research Data Center, the National Center for Health Statistics, or the Centers for Disease Control and Prevention.

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[36] State Health Access Data Assistance Center (SHADAC). "Defining 'Family' for Studies of Health Insurance Coverage." March 2012. Available at: http://www.shadac.org/files/shadac/publications/SHADAC_Brief27.pdf.

ASPE
ISSUE BRIEF

HOW MANY INDIVIDUALS MIGHT HAVE MARKETPLACE COVERAGE AT THE END OF 2016?

October 15, 2015

The Affordable Care Act (ACA) provides two main avenues for expanding health coverage: the Health Insurance Marketplaces ("Marketplaces") and the law's federal support for states that wish to expand their Medicaid programs. This brief estimates how many individuals nationwide might have Marketplace coverage after the upcoming Open Enrollment period (November 1, 2015–January 31, 2016) through the end of 2016.[1]

Looking ahead to the third Open Enrollment period (OE3), analysts have produced a wide range of estimates of the number of people who will enroll in coverage through the Marketplaces that vary due to differing underlying assumptions and analytical methods. Last year, the Secretary of Health and Human Services projected that 9.1 million consumers would be enrolled through the Marketplaces for individual coverage at the end of 2015. We expect that figure to be the starting point for the third open enrollment period.

In preparation for OE3, the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (ASPE) developed a projection for potential 2016 enrollment through the Marketplaces, taking into account both short-run and long-run factors that affect the level of enrollment. Given the range of factors that may affect enrollment, we provide ranges for enrollment and cross-validate our results using additional methods. The ASPE projection is the product of collaboration among individuals involved in research, operations, and consumer outreach for the Marketplaces. ASPE also gathered feedback on the projection models and results from a variety of outside experts.

ASPE's Estimates of Marketplace Enrollment
ASPE's projection uses a "bottom up" approach that builds a national estimate up from state-level information on previous enrollment periods and analysis of the broader insurance market. This method yielded an estimated range of 9.4 to 11.4 million effectuated enrollees in the

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[1] This brief considers only individual market Qualified Health Plan (QHP) enrollment through the Marketplaces and not enrollment through the Small Business Health Options Program (SHOP).

Marketplace at the end of 2016. The range is based on assumptions about the effectuated enrollment at the end of 2015, the starting point for OE3, rates of re-enrollment, take-up by new enrollees, and attrition of those who initially select a plan but do not maintain coverage for the entire year.

Bottom Up Approach: Projection of Marketplace Enrollment in 2016
In generating its bottom up estimate for 2016 enrollment, ASPE analyzed the potential for re-enrollment and new enrollment in coverage through the Marketplaces. ASPE modeled 2016 enrollment as coming via three channels (FIGURE 1):

- **Continued enrollment by 2015 Marketplace enrollees**: The number of Marketplace policyholders with plan year 2015 coverage and the rate at which they will re-enroll;
- **Shifts from off-Marketplace individual coverage into coverage through the Marketplaces**: The number of individuals who currently hold "off-Marketplace" individual policies and who will have plan selections through the Marketplaces at the end of OE3; and
- **Enrollment of the uninsured through the Marketplaces**: The number of QHP-eligible uninsured who will have plan selections through the Marketplaces at the end of OE3.[2]

FIGURE 1
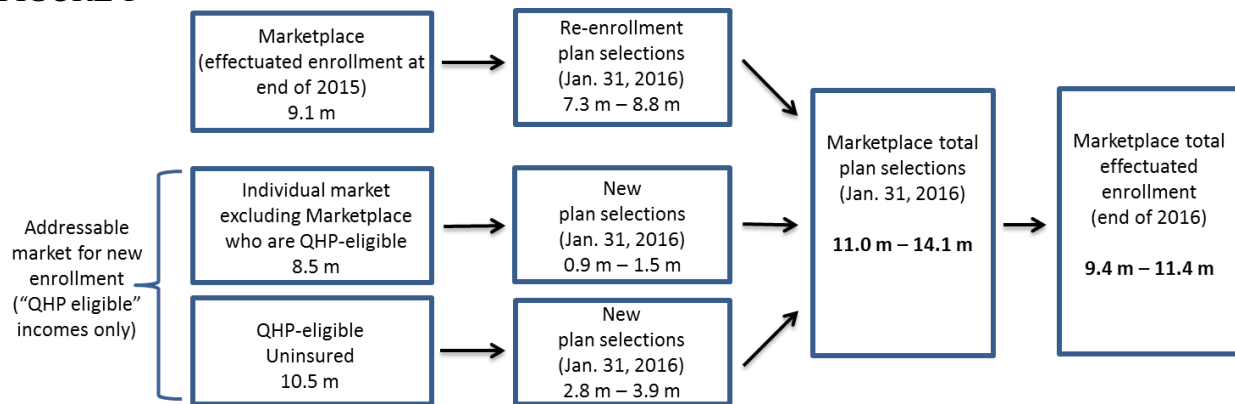
For the first element, **continued enrollment by 2015 Marketplace enrollees**, ASPE used data from the Centers for Medicare & Medicaid Services (CMS) on individuals currently enrolled in coverage through the Marketplaces and an analysis of re-enrollment rates from OE2 to project a range for OE3. As discussed above, we expect that 9.1 million individuals will be enrolled through Marketplaces for individual coverage at the end of 2015, but we also consider a range of starting points on which to base projections given uncertainty.

The latter two elements, **shifts from off-Marketplace individual coverage and enrollment of the uninsured into coverage through the Marketplaces**, comprise the inflows from the

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[2] Office of the Assistant Secretary for Planning and Evaluation. "Health Insurance Marketplace: Uninsured Populations Eligible to Enroll for 2016." October 2015. Available at: http://aspe.hhs.gov/pdf-report/health-insurance-marketplace-uninsured-populations-eligible-enroll-2016.

"addressable market" for new enrollment. The "addressable market" was defined as all individuals who are uninsured or have coverage through the individual market and who have family incomes at or above the level for eligibility for Marketplace insurance affordability programs (generally greater than 100% or 138% of the federal poverty level, depending on state Medicaid expansion status). To estimate the size of the uninsured portion of the addressable market, ASPE used data from the American Community Survey (ACS) and the Gallup-Healthways Well-Being Index, a daily poll of American adults. Information from the Kaiser Family Foundation and the National Health Interview Survey was used to estimate the size of the individual market.

We estimate that there are currently about 19 million people in the addressable market for new enrollment, consisting of 8.5 million people with off-Marketplace non-group coverage and 10.5 million who are uninsured. Based on the 2013 ACS, we calculated the number of QHP-eligible uninsured individuals prior to the first open enrollment period. Adjusting that estimate to reflect the reduction in uninsured rates between 2013 and Q2 2015 according to the Gallup-Healthways Well-Being Index suggests there are currently 10.5 million QHP-eligible uninsured. This number of eligible uninsured is smaller than in previous years, reflecting take-up of Marketplace coverage by eligible uninsured during the first two years of the Marketplaces' operations, and, to a less extent an improving economy where more people have access to employer-sponsored insurance (ESI) through a job, as well as increased access to health coverage as states expand Medicaid and introduce new plan options such as the Basic Health Program in New York and Minnesota.

The projection for new enrollment depends on the likelihood that potential consumers from the addressable market will enroll in Marketplace coverage or the "take-up rate." To predict take-up in the addressable market, ASPE stratified that population by family income into groups that were likely eligible for subsidies (financial assistance in the form of advance premium tax credits and cost sharing reductions) or had incomes too high to be eligible for financial assistance. State-level OE3 take-up rates are based on observed rates by these income groups in OE2, adjusted to account for increasing awareness of the Marketplaces, the increase in the individual shared responsibility penalty amount (and increasing awareness of the penalty), and the fact that some states have already achieved such large reductions in the uninsured population that any remaining uninsured people would likely be particularly difficult to reach. We vary these rates to account for uncertainty, which generates a range of estimates for plan selections through the Marketplaces in 2016. Our analyses suggest that between 0.9 and 1.5 million individuals with non-group coverage outside the Marketplaces and between 2.8 and 3.9 million eligible uninsured individuals will select plans through the Marketplaces.[3]

ASPE combined these population estimates and take-up rates for re-enrollment and new enrollment to estimate total Marketplace plan selections at the end of OE3. By the end of OE3, we expect 11.0 to 14.1 million individuals will have selected plans for 2016 coverage through the Marketplaces.

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[3] Going forward, it will be important to track take-up rates among eligible uninsured people. Take-up rates will change with time, as will the base population of remaining uninsured as more individuals enroll in Marketplace plans, and thus rates of overall growth in enrollment will necessarily decline.

Effectuated (active) enrollment at the end of 2016 is expected to be lower than the number of OE3 plan selections. Based on the Marketplaces' first two years, we expect a net decrease in Marketplace enrollment relative to the level at the end of open enrollment. The number of individuals joining through Special Enrollment Periods (SEP) throughout the year does not fully offset those who leave for other forms of coverage or due to factors such as non-payment or termination from coverage as a result of a data matching issue. We project that in 2016 the year-end effectuated enrollment will be 9.4 to 11.4 million.[4] ASPE's analysis implies that most of the new Marketplace enrollment for 2016 is likely to come from the ranks of the uninsured, with more than three previously uninsured new enrollees for each one new enrollee who previously had off-Marketplace individual coverage.

Uncertainty
As a check on the "bottom up" approach, we used a "top down" approach of modifying existing forecasts based on data from the first two years of Marketplace experience to put our estimates into the context of other models used to forecast enrollment. Specifically, the top down approach builds off 2015 projections from the Congressional Budget Office (CBO) that the Marketplaces will enroll a total of 20 million people in 2016 and level off at 23 million starting in 2017.[5] We adjusted the CBO projections according to lessons learned over the past two years about enrollment through the Marketplaces and the most recent information available about trends in ESI coverage and in the individual market outside the Marketplaces. Specifically, we adjust CBO estimates downward based on employer surveys from Mercer and other industry sources, which suggest that shifts from ESI coverage and the off-Marketplace individual market into coverage through the Marketplaces will be smaller than CBO expected and that the remaining uninsured may be harder to reach than in previous years. When these adjustments are accounted for, projections of 2016 enrollment using the top-down method are consistent with ASPE's bottom-up projections.

There is a high degree of uncertainty about any projection, especially in the early years of a program. The Marketplaces have been in place for only two years, and thus we have limited experience upon which to base projections. There are numerous factors that affect consumers' insurance enrollment, including attitudes of consumers and employers, the effect of payments under the individual responsibility fee, the size of premiums and premium tax credits, the ease of the enrollment process, communication and outreach efforts, and whether and how insurance products change over time. As Marketplace coverage becomes more widespread and the size of the uninsured population eligible for enrollment in coverage through the Marketplaces shrinks, the remaining uninsured may be harder to reach, slowing enrollment growth. Beyond these factors, there are macroeconomic forces such as changes in population and economic conditions, which are difficult to predict but likely to affect enrollment. Thus, actual enrollment could vary significantly from projected levels.

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[4] This range for year-end enrollment equates to 9.8 to 12 million for average monthly effectuated enrollment during 2016; our year-end estimate incorporates expectations about attrition over the year.
[5] Budgetary and Economic Effects of Repealing the Affordable Care Act. Accessed at: https://www.cbo.gov/publication/50252

The Bottom Line

Our bottom-up approach results in an estimated range of 9.4 to 11.4 million effectuated enrollees at the end of 2016. This range reflects the considerable degree of uncertainty in making such projections. The top of the estimated range is based on the combination of a higher take-up rate, higher reenrollment, and less attrition, while the bottom of the range reflects the combination of a lower take-up rate, less reenrollment, and more attrition. Marketplace enrollment is an essential component to achieving ACA's mission to reduce the number of uninsured individuals in the U.S. Through Marketplace retention and new enrollment and increased Medicaid coverage, we will continue to work to provide every American with access to high-quality, affordable insurance.

Testimony

Before the Subcommittee on Health, Committee on Energy and Commerce, House of Representatives

PATIENT PROTECTION AND AFFORDABLE CARE ACT

Preliminary Results of Undercover Testing of the Federal Marketplace and Selected State Marketplaces for Coverage Year 2015

Statement of Seto Bagdoyan, Director, Forensic Audits and Investigative Service

October 23, 2015

PATIENT PROTECTION AND AFFORDABLE CARE ACT

Preliminary Results of Undercover Testing of the Federal Marketplace and Selected State Marketplaces for Coverage Year 2015

Why GAO Did This Study

PPACA provides for the establishment of health-insurance marketplaces where consumers can, among other things, select private health-insurance plans or apply for Medicaid. The Congressional Budget Office estimates the cost of subsidies and related spending under PPACA at $60 billion for fiscal year 2016. PPACA requires verification of applicant information to determine enrollment or subsidy eligibility. In addition, PPACA provided for the expansion of the Medicaid program. GAO was asked to examine application and enrollment controls for the marketplaces and Medicaid.

This testimony provides preliminary results of undercover testing of the federal and selected state marketplaces during the 2015 open-enrollment period, for both private health-care plans and Medicaid. GAO submitted, or attempted to submit, 18 fictitious applications by telephone and online, 10 of which tested controls related to obtaining subsidized health-plan coverage available through the federal Marketplace in New Jersey and North Dakota, and through state marketplaces in California and Kentucky. GAO chose these four states based partly on a range of population sizes and whether the state had expanded Medicaid eligibility under terms of the act. The other 8 applications, among the 18 GAO made, tested marketplace and state controls under the marketplace system for determining Medicaid eligibility in these four states. The undercover results, while illustrative, cannot be generalized to the full population of enrollees. GAO discussed the results of its testing with CMS and state officials to obtain their perspectives.

View GAO-16-159T. For more information, contact Seto Bagdoyan at (202) 512-6722 or BagdoyanS@gao.gov.

What GAO Found

Under the Patient Protection and Affordable Care Act (PPACA), health-insurance marketplaces are required to verify application information to determine eligibility for enrollment and, if applicable, determine eligibility for income-based subsidies or Medicaid. These verification steps include reviewing and validating information about an applicant's Social Security number, if one is provided; citizenship, status as a national or lawful presence; and household income and family size.

For 10 fictitious applicants, GAO tested application and enrollment controls for obtaining subsidized health plans available through the federal Health Insurance Marketplace (Marketplace) (for New Jersey and North Dakota) and two selected state marketplaces (California and Kentucky). Although 8 of these 10 fictitious applications failed the initial identity-checking process, all 10 were subsequently approved by the federal Marketplace or the selected state marketplaces. Four applications used Social Security numbers that, according to the Social Security Administration (SSA), have never been issued, such as numbers starting with "000." Other applicants had duplicate enrollment or claimed their employer did not provide insurance that meets minimum essential coverage.

For 8 additional fictitious applicants, GAO tested enrollment into Medicaid through the same federal Marketplace and the two selected state marketplaces, and was able to obtain either Medicaid or alternative subsidized coverage for 7 of the 8 applicants. Specifically:

- Three were approved for Medicaid, which was the health-care program for which GAO originally sought approval. In each case, GAO provided identity information that would not have matched SSA records. For two applications, the marketplace directed the fictitious applicants to submit supporting documents, which GAO did (such as a fake immigration card), and the applications were approved. For the third, the marketplace did not seek supporting documentation, and the application was approved by phone.

- For four, GAO did not obtain approval for Medicaid; however, GAO was subsequently able to gain approval of subsidized health plans based on the inability to obtain Medicaid coverage. In 1 case, GAO falsely claimed that it was denied Medicaid in order to obtain the subsidized health plan when in fact no Medicaid determination had been made by the state at that time.

- For one, GAO was unable to enroll into Medicaid, in California, because GAO declined to provide a Social Security number. According to California officials, the state marketplace requires a Social Security number or taxpayer-identification number to process applications.

According to officials from the Centers for Medicaid & Medicare Services (CMS), California, Kentucky, and North Dakota, the marketplaces and Medicaid offices only inspect for supporting documentation that has obviously been altered. Thus, if the documentation submitted does not show such signs, it would not be questioned for authenticity. GAO's work is continuing, and GAO plans to issue a final report at a later date.

_____ **United States Government Accountability Office**

Chairman Pitts, Ranking Member Green, and Members of the Subcommittee:

I am pleased to be here today to discuss enrollment for health-care coverage obtained through the health-insurance exchanges, or marketplaces, established under the Patient Protection and Affordable Care Act (PPACA) and, in particular, to discuss the preliminary results of our undercover testing of eligibility and enrollment controls for the federal Health Insurance Marketplace (Marketplace) and selected state marketplaces for the 2015 coverage year. PPACA provides subsidies to those eligible to purchase private health-insurance plans who meet certain income and other requirements. With those subsidies and other costs, the act represents a significant, long-term fiscal commitment for the federal government. According to the Congressional Budget Office, the estimated cost of subsidies and related spending under the act is $60 billion for fiscal year 2016, rising to $105 billion for fiscal year 2025, and totaling $880 billion for fiscal years 2016–2025.[1]

While subsidies under the act are not paid directly to enrollees, participants nevertheless benefit financially through reduced monthly premiums or lower costs due at time of service, such as copayments.[2] Because subsidy costs are contingent on who obtains coverage, enrollment controls that help ensure only qualified applicants are approved for subsidized coverage are a key factor in determining federal expenditures under the act.[3] In addition, PPACA provided for the expansion of the Medicaid program.[4] Under the expansion, states may

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[1]Related spending includes marketplace grants to states and other items.

[2]Enrollees can pay lower monthly premiums by virtue of a tax credit the act provides. They may elect to receive the tax credit in advance, to lower premium cost, or to receive it at time of income-tax filing, which reduces tax liability.

[3]According to Department of Health and Human Services' (HHS) Centers for Medicare & Medicaid Services (CMS) data, about 11.7 million people selected or were automatically reenrolled into a 2015 health insurance plan under the act. A large share of those enrollees—87 percent, in states using the HealthCare.gov system—qualified for the advance premium tax-credit subsidy provided by the act, which is described later in this statement.

[4]PPACA provides states with additional federal funding to expand their Medicaid programs to cover adults under 65 with income up to 133 percent of the federal poverty level. Because of the way the limit is calculated, using what is known as an "income disregard," the level is effectively 138 percent of the federal poverty level.

choose to provide Medicaid coverage to nonelderly adults who meet income limits and other criteria. Under PPACA, the federal government is to fully reimburse states through fiscal year 2016 for the Medicaid expenditures of "newly eligible" individuals who gained Medicaid eligibility through the expansion.[5] According to the Office of the Actuary of the Centers for Medicare & Medicaid Services (CMS), federal expenditures for the Medicaid expansion are estimated at $430 billion from 2014 through 2023.[6]

PPACA provides for the establishment of health-insurance marketplaces to assist consumers in comparing and selecting among insurance plans offered by participating private issuers of health-care coverage.[7] Under PPACA, states may elect to operate their own health-care marketplaces, or they may rely on the federal Marketplace, known to the public as HealthCare.gov.[8] These marketplaces were intended to provide a single point of access for individuals to enroll in private health plans, apply for income-based subsidies to offset the cost of these plans—which, as noted, are paid directly to health-insurance issuers—and, as applicable, obtain an eligibility determination or assessment of eligibility for other health-coverage programs, such as Medicaid or the Children's Health Insurance Program.[9] CMS, a unit of the Department of Health and Human

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[5]The "newly eligible" reimbursement rate drops to 95 percent in calendar year 2017, 94 percent in calendar year 2018, 93 percent in calendar year 2019, and 90 percent afterward.

[6]According to the CMS Office of the Actuary, an average of 4.3 million newly eligible adults are projected to have been enrolled in Medicaid in 2014, with newly eligible adult enrollment projected to reach 12.0 million people by 2023—representing 7 percent and 15 percent, respectively, of total projected program enrollment. Expenditures for newly eligible adults are estimated to have been $23.7 billion in 2014 and are projected to total $460 billion over 2014 through 2023, according to the actuary. About $430 billion, or 93 percent, of these costs are expected to be paid by the federal government.

[7]Specifically, the act required, by January 1, 2014, the establishment of health-insurance marketplaces in all states. In states not electing to operate their own marketplaces, the federal government was required to operate a marketplace.

[8]As of March 2015, 37 states were using HealthCare.gov, according to HHS' Office of the Assistant Secretary for Planning and Evaluation, with the federal Marketplace accounting for 76 percent (8.8 million) of consumers' plan selections.

[9]Individuals may also continue to apply for Medicaid coverage or the Children's Health Insurance Program through direct application to their respective state agencies. According to CMS officials, eligibility requirements are generally the same for both programs. In this statement, our testing was only for Medicaid eligibility.

Services (HHS), is responsible for overseeing the establishment of these online marketplaces, and the agency maintains the federal Marketplace.

To be eligible to enroll in a "qualified health plan" offered through a marketplace—that is, one providing essential health benefits and meeting other requirements under PPACA—an individual must be a U.S. citizen or national, or otherwise lawfully present in the United States; reside in the marketplace service area; and not be incarcerated (unless incarcerated while awaiting disposition of charges).[10] To be eligible for Medicaid, individuals must meet federal requirements regarding residency, U.S. citizenship or immigration status, and income limits, as well as any additional state-specific criteria that may apply.

Marketplaces are required by PPACA to verify application information to determine eligibility for enrollment and, if applicable, determine eligibility for the income-based subsidies or Medicaid. These verification steps include validating an applicant's Social Security number, if one is provided;[11] verifying citizenship, status as a national, or lawful presence by comparison with Social Security Administration or Department of Homeland Security records; and verifying household income and family size by comparison with tax-return data from the Internal Revenue Service, as well as data on Social Security benefits from the Social Security Administration.[12]

In light of the government's substantial fiscal commitment under the act, congressional requesters originally asked us to examine enrollment and

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[10]In this statement, we use "qualified health plan" to refer to coverage obtained from private insurers, as distinguished from enrollment in a public health program such as Medicaid.

[11]A marketplace must require an applicant who has a Social Security number to provide the number. 42 U.S.C. § 18081(b)(2) and 45 C.F.R. § 155.310(a)(3)(i). However, having a Social Security number is not a condition of eligibility.

[12]For further background, see Department of Health and Human Services, Office of Inspector General, *Not All of the Federally Facilitated Marketplace's Internal Controls Were Effective in Ensuring That Individuals Were Properly Determined Eligible for Qualified Health Plans and Insurance Affordability Programs*, A-09-14-01011 (Washington, D.C.: Aug. 6, 2015); GAO, *Patient Protection and Affordable Care Act: IRS Needs to Strengthen Oversight of Tax Provisions for Individuals*, GAO-15-540 (Washington, D.C.: July 29, 2015); and GAO, *Healthcare.gov: CMS Has Taken Steps to Address Problems, but Needs to Further Implement Systems Development Best Practices*, GAO-15-238 (Washington, D.C.: Mar. 4, 2015).

verification controls of the federal Marketplace.[13] In July 2014, we presented testimony on the results of our initial work, which focused on application for, and approval of, coverage for fictitious applicants for the 2014 coverage year—the first under the act—through the federal Marketplace.[14] In July 2015, we testified on the final results of that work, including the maintenance of the fictitious applicant identities and extension of coverage through 2014 and into 2015, payment of federally subsidized premiums on policies we obtained, and the Marketplace's verification process for applicant documentation.[15] We plan to issue a final report on the results of our undercover eligibility and enrollment controls testing for the 2014 coverage year shortly.

Following the original request, you and other congressional requesters asked us to continue to examine enrollment and verification controls of the federal Marketplace and state marketplaces as well, for the 2015 coverage year—the second under the act. My statement today is based on the preliminary results and analysis from this ongoing work.[16] Specifically, today's statement describes the preliminary results of our undercover testing of the federal Marketplace and selected state marketplaces, for application, enrollment, and eligibility-verification controls, for both qualified health-care plans and Medicaid, during the

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[13]Our original requesters were: in the U.S. Senate, the then–Ranking Member of the Committee on Homeland Security and Government Affairs and the then–Ranking Member of the Committee on Finance; and in the House of Representatives, the then-Chairman of the Committee on Ways and Means and the then-Chairman of the Subcommittee on Oversight, Committee on Ways and Means.

[14]GAO, *Patient Protection and Affordable Care Act: Preliminary Results of Undercover Testing of Enrollment Controls for Health Care Coverage and Consumer Subsidies Provided Under the Act,* GAO-14-705T (Washington, D.C.: July 23, 2014).

[15]GAO, *Patient Protection and Affordable Care Act: Observations on 18 Undercover Tests of Enrollment Controls for Health-Care Coverage and Consumer Subsidies Provided under the Act*, GAO-15-702T (Washington, D.C.: July 16, 2015).

[16]Our original requesters are: in the U.S. Senate, the Chairman of the Committee on Finance; and in the House of Representatives, the Chairman of the Committee on Energy and Commerce, the Chairman of the Subcommittee on Health, Committee on Energy and Commerce; the former Chairman of the Committee on Ways and Means and the former Chairman of the Subcommittee on Oversight, Committee on Ways and Means.

act's second open-enrollment period ending February 2015.[17] We plan to issue a final report at a later date.

To perform our undercover testing of the federal and selected state eligibility and enrollment processes for the 2015 coverage year, we created 18 fictitious identities for the purpose of making applications for health-care coverage by telephone and online.[18] The undercover results, while illustrative, cannot be generalized to the full population of enrollees. For all 18 applications, we used publicly available information to construct our scenarios. We also used publicly available hardware, software, and materials to produce counterfeit or fictitious documents, which we submitted, as appropriate for our testing, when instructed to do so. We then observed the outcomes of the document submissions, such as any approvals received or requests to provide additional supporting documentation.

Because the federal government, at the time of our review, operated a marketplace on behalf of the state in about two-thirds of the states, we focused part of our work on two states using the federal Marketplace—New Jersey and North Dakota. We chose these two states because they had expanded Medicaid eligibility and also delegated their Medicaid eligibility determinations to the federal Marketplace at the time of our testing.[19] In addition, we chose two state marketplaces, California and Kentucky, for our undercover testing. We chose these two states, in part, based on the states having expanded Medicaid eligibility and differences in population.

For 10 applicant scenarios, we tested controls for verifications related to qualified health-plan coverage. Specifically, we created application

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[17]Our testing included only applications through a marketplace and did not include, for example, applications for Medicaid made directly to a state Medicaid agency.

[18]For all our applicant scenarios, we sought to act as ordinary consumers might in attempting to make a successful application. For example, if, during online applications, we were directed to make phone calls to complete the process, we acted as instructed.

[19]According to CMS officials, for states that have delegated the determinations, the federal Marketplace will make an eligibility determination if there are no application "inconsistencies"—instances in which information an applicant has provided does not match information contained in data sources used for eligibility verification at the time of application, or such information is not available. If there are inconsistencies, state Medicaid agencies make the determination.

scenarios with fictitious applicants claiming to have impossible Social Security numbers;[20] claiming to be working for an employer that offers health insurance, but not coverage that meets "minimum essential" standards; or already having existing qualified health-plan coverage.[21] We made 4 of these 10 applications online and the other 6 applications by phone. In these tests, we also stated income at a level eligible to obtain both types of income-based subsidies available under PPACA—a premium tax credit, to be paid in advance, and cost-sharing reduction.[22]

For 8 additional applicant scenarios, we tested controls for verifications related to Medicaid coverage.[23] Specifically, our fictitious applicants provided invalid Social Security identities, where their information did not match Social Security Administration records, or claimed they were noncitizens lawfully present in the United States and declined to provide Social Security numbers.[24] In situations where we were asked to provide immigration document numbers, we provided impossible immigration

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[20]According to the Social Security Administration Program Operations Manual System, the Social Security Administration has never issued a Social Security number with the first three digits as "000," "666," or in the 900 series; the second group of two digits as "00"; or the third group of four digits as "0000."

[21]In the case of the employer-provided coverage, we created a fictitious company with fictitious employer contact information. For the existing-coverage testing, we used an identity that had previously obtained coverage during our testing of enrollment for coverage-year 2014; see GAO-15-702T.

[22]To qualify for these income-based subsidies, an individual must be eligible to enroll in marketplace coverage; meet income requirements; and not be eligible for coverage under a qualifying plan or program, such as affordable employer-sponsored coverage, Medicaid, or the Children's Health Insurance Program. Cost-sharing reduction is a discount that lowers the amount consumers pay for out-of-pocket charges for deductibles, coinsurance, and copayments. Because the benefit realized through the cost-sharing reduction subsidy can vary according to medical services used, the value to consumers of such subsidies can likewise vary.

[23]According to CMS officials, when an individual applies through a marketplace for coverage with financial assistance, they complete a single application that is an application for all insurance affordability programs; that is, individuals do not apply specifically for individual programs such as Medicaid. For our Medicaid testing, we applied using an income level we selected as eligible for Medicaid coverage. On that basis, we refer to our "Medicaid applications" throughout this statement. The application is signed under penalty of perjury, the officials noted.

[24]Note that we distinguish between impossible Social Security numbers—numbers never issued—and invalid Social Security identities—in which applicant-submitted information does not match Social Security Administration records.

document numbers.[25] We made half of these applications online and half by phone. In these tests, we also stated income at a level eligible to qualify for coverage under the Medicaid expansion, where the federal government is responsible for reimbursing the states for 100 percent of the Medicaid costs in 2015. In cases where we did not obtain approval for Medicaid, we instead attempted, as appropriate, to obtain coverage for subsidized qualified health plans in the same manner as described earlier.

After concluding our undercover testing, we briefed officials from CMS; officials from the state marketplaces; and Medicaid officials from California, Kentucky, and North Dakota on our results. We asked to brief Medicaid officials from New Jersey but they declined our request. To protect our undercover identities, we did not provide the marketplaces with specific applicant identity information. CMS and selected state officials generally told us that without such information, they could not fully research handling of our applicants. We also reviewed laws, regulations, and other policy and related information.

We are conducting the work upon which this statement is based 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. We are conducting our related investigative work in accordance with investigative standards prescribed by the Council of the Inspectors General on Integrity and Efficiency.

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[25]Specifically, we provided numbers that did not match the format for the document(s) at issue.

Preliminary Results of Undercover Attempts to Obtain Qualified Health-Plan Coverage from the Federal Marketplace and Selected State Marketplaces

Our undercover testing for the 2015 coverage year found that the health-care marketplace eligibility determination and enrollment process remains vulnerable to fraud.[26] As shown in figure 1, the federal Marketplace or selected state marketplaces approved each of our 10 fictitious applications for subsidized qualified health plans.[27] We subsequently paid premiums to put these policies into force.

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[26]As noted earlier, we conducted similar undercover testing for the first open-enrollment period. See GAO-15-702T.

[27]For our testing involving applications for qualified health-plan coverage, our fictitious applicants initially applied online or by telephone.

Figure 1: Summary of Outcomes for 10 Fictitious Applications for Subsidized Qualified Health-Plan Coverage

Marketplace	State	Initial application type	Scenario for testing	Obtained subsidized qualified health-plan coverage?
▶ Federal				
	New Jersey			
		Phone	Impossible Social Security number	✔ Yes
		Online	Employer-sponsored coverage not meeting "minimum essential" standards	✔ Yes
	North Dakota			
		Phone	Impossible Social Security number	✔ Yes
		Online	Employer-sponsored coverage not meeting "minimum essential" standards	✔ Yes
▶ State				
	California			
		Phone	Impossible Social Security number	✔ Yes
		Online	Employer-sponsored coverage not meeting "minimum essential" standards	✔ Yes
		Phone[a]	Duplicate enrollment	✔ Yes
	Kentucky			
		Phone	Impossible Social Security number	✔ Yes
		Online	Employer-sponsored coverage not meeting "minimum essential" standards	✔ Yes
		Phone	Duplicate enrollment[b]	✔ Yes

Source: GAO. | GAO-16-159T

[a]We initially applied by phone for coverage. At the time of application, the call representative stated that the data hub was not working and that we could send in the application by mail, fax it, or visit in person. We chose to mail the application with supporting documentation (for example, driver's license) to the state marketplace. We subsequently obtained coverage.

[b]In addition to obtaining coverage under a subsidized qualified health plan, we were also subsequently approved for Medicaid.

As the figure shows, for these 10 applications, we were approved for subsidized coverage—the premium tax credit, paid in advance, and cost-

sharing reduction subsidies—for all cases.[28] The monthly amount of the advance premium tax credit for these 10 applicants totaled approximately $2,300 per month, or about $28,000 annually, equal to about 70 percent of total premiums. For 4 of these applications, we used Social Security numbers that could not have been issued by the Social Security Administration.[29] For 4 other applications, we said our fictitious applicants worked at a company—which we also created—that offered health insurance, but the coverage did not provide required minimum essential coverage under PPACA. For the final 2 applications, we used an identity from our prior undercover testing of the federal Marketplace to apply for coverage concurrently at two state marketplaces.[30] Thus, this fictitious applicant received subsidized qualified health-plan coverage from the federal Marketplace and the two selected state marketplaces at the same time.

For 8 applications among this group of 10, we failed to clear an identity-checking step during the "front end" of the application process, and thus could not complete the process.[31] In these cases, we were directed to contact a contractor that handles identity checking. The contractor was unable to resolve the identity issues and directed us to call the appropriate marketplace. We proceeded to phone the marketplaces and

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[28]To receive advance payment of the premium tax credit (described earlier), applicants agree they will file a tax return for the coverage year, and must indicate they understand that the premium tax credits paid in advance are subject to reconciliation on their federal tax return, based on actual income earned. Cost-sharing reduction is a discount that lowers the amount consumers pay for out-of-pocket charges for deductibles, coinsurance, and copayments.

[29]As noted earlier, the Social Security Administration does not issue Social Security numbers with certain strings of digits.

[30]See GAO-15-702T.

[31]Known as "identity proofing," the process uses personal and financial history on file with a credit-reporting agency. The marketplace generates questions that only the applicant is believed likely to know. According to CMS, the purpose of identity proofing is to prevent someone from creating an account and applying for health coverage based on someone else's identity and without their knowledge. Although intended to counter such identity theft involving others, identity proofing thus also serves as an enrollment control for those applying online.

our applications were subsequently approved. The other two applicants were accepted by phone.[32]

For each of the 10 undercover applications where we obtained qualified health-plan coverage, the respective marketplace directed that our applicants submit supplementary documentation. The marketplaces are required to seek postapproval documentation in the case of certain application "inconsistencies"—instances in which information an applicant has provided does not match information contained in data sources that the marketplace uses for eligibility verification at the time of application, or such information is not available. If there is an application inconsistency, the marketplace is to determine eligibility using the applicant's attestations and ensure that subsidies are provided on behalf of the applicant, if qualified to receive them, while the inconsistency is being resolved using "back-end" controls. Under these controls, applicants will be asked to provide additional information or documentation for the marketplaces to review in order to resolve the inconsistency.

As part of our testing, and to respond to the marketplace directives, we provided counterfeit follow-up documentation, such as fictitious Social Security cards with impossible Social Security numbers, for all 10 undercover applications.[33]

For all 10 of these undercover applications, we maintained subsidized coverage beyond the period during which applicants may file supporting documentation to resolve inconsistencies. In one case, the Kentucky marketplace questioned the validity of the Social Security number our applicant provided, which was an impossible Social Security number. In fact, the marketplace told us the Social Security Administration reported that the number was not valid. Despite this, however, the Kentucky marketplace notified our fictitious applicant that the applicant was found eligible for coverage. For the four fictitious applicants who claimed their employer did not provide minimum essential coverage, the marketplace

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[32]We were not required to go through the contractor identity proofing for the two phone applications through the federal Marketplace. All phone and online applications to the state marketplaces, and the online applications to the federal Marketplace, did require the contractor identity proofing.

[33]CMS officials said provision of a Social Security number is not a condition of eligibility, but we note the number is nevertheless important for identity verification and tax reconciliation.

did not contact our fictitious employer to confirm the applicant's account that the company offers only substandard coverage.

In August 2015, we briefed CMS and California and Kentucky state officials on the results of our undercover testing, to obtain their views. According to these officials, the marketplaces only inspect for documents that have obviously been altered. Thus, if the documentation submitted does not appear to have any obvious alterations, it would not be questioned for authenticity. In addition, according to Kentucky officials, in the case of the impossible Social Security number, the identity-proofing process functioned correctly, but a marketplace worker bypassed identity-proofing steps that would have required a manual verification of the fictitious Social Security card we submitted. The officials told us they plan to provide training on how to conduct manual verifications to prevent this in the future.

As for our employer-sponsored coverage testing, CMS and California officials told us that during the 2015 enrollment period, the marketplaces accepted applicants' attestation on lack of minimum essential coverage. As a result, the marketplaces were not required to communicate with the applicant's employer to confirm whether the attestation is valid. Kentucky officials told us that applicant-provided information is entered into its system to determine whether the applicant's claimed plan meets minimum essential coverage standards. If an applicant receives a qualified health-plan subsidy because the applicant's employer-sponsored plan does not meet the guidelines, the Kentucky marketplace sends a notice to the employer asking it to verify the applicant information. The officials told us the employer letter details, among other things, the applicant-provided information and minimum essential coverage standards. However, our fictitious company did not receive such notification.

CMS, California, and Kentucky officials also told us there is no current process to identify individuals with multiple enrollments through different marketplaces. CMS officials told us it was unlikely an individual would seek to obtain subsidized qualified health-plan coverage in multiple states. We conducted this portion of our testing, however, to evaluate whether such a situation, such as a stolen identity, would be possible. CMS officials told us the agency would need to look at the risk associated with multiple coverage.

Kentucky officials told us that in response to our findings, call center staff have been retrained on identity-proofing processes, and that they are

improving training for other staff as well. They also said they plan changes before the next open-enrollment period so that call center representatives cannot bypass identity-proofing steps, as occurred with our applications. Further, they said they plan to improve the process for handling of applications where employer-sponsored coverage is at issue. Also in response to our findings, California officials said they are developing process improvements and system modifications to address the issues we raised, and would share details later.

Finally, in the case of the federal Marketplace in particular, for which, as noted, we conducted undercover testing previously, we asked CMS officials for their views on our second-year results compared to the first year. They told us the eligibility and enrollment system is generally performing as designed. According to the officials, a key feature of the system, when applicant information cannot immediately be verified, is whether proper inconsistencies are generated, in order that they can be addressed later, after eligibility is granted at time of application. Earlier, CMS officials told us the overall approach is that CMS must balance consumers' ability to effectively and efficiently select Marketplace coverage with program-integrity concerns.

Preliminary Results of Undercover Attempts to Obtain Medicaid Coverage through the Federal Marketplace and Selected State Marketplaces

In addition to our applications for subsidized private health plans, we also made eight additional fictitious applications for Medicaid coverage in order to test the ability to apply for that program through the marketplaces. As shown in figure 2, in these tests, we were approved for subsidized health-care coverage for seven of the eight applications. For three of the eight applications, we were approved for Medicaid, as originally sought. For four of the eight applications, we did not obtain Medicaid approval, but instead were subsequently approved for subsidized qualified health-plan coverage.[34] The monthly amount of the advance premium tax credit for these four applicants totaled approximately $1,100 per month, or about $13,000 annually.[35] For one of

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[34]Thus, while we did not obtain Medicaid coverage as initially sought, we nevertheless obtained federally subsidized coverage instead.

[35]Thus, our total advance premium tax credit subsidies received—for the qualified health-plan applications described earlier and the initial Medicaid applications described here that ultimately produced qualified health-plan coverage—totaled approximately $3,400 per month, or about $41,000 annually.

the eight applications, we could not obtain Medicaid coverage because we declined to provide a Social Security number.

Figure 2: Summary of Outcomes for Eight Fictitious Applications for Medicaid Coverage

Marketplace	State	Initial application type		Scenario for testing	Obtained Medicaid coverage?
▶ **Federal**					
	New Jersey	☎	Phone	Did not provide Social Security number	Obtained subsidized qualified health-plan coverage in lieu of Medicaid
		💻	Online	Invalid Social Security identity	Obtained subsidized qualified health-plan coverage in lieu of Medicaid
	North Dakota	☎	Phone	Did not have Social Security number; provided impossible immigration document number	Obtained subsidized qualified health-plan coverage in lieu of Medicaid
		💻	Online	Invalid Social Security identity	✔ Yes
▶ **State**					
	California	☎	Phone	Did not provide Social Security number	✗ Application denied
		💻	Online	Invalid Social Security identity	✔ Yes
	Kentucky	☎	Phone	Did not have Social Security number; provided impossible immigration document number	Obtained subsidized qualified health-plan coverage in lieu of Medicaid
		💻	Online	Invalid Social Security identity	✔ Yes

Source: GAO. | GAO-16-159T

As with our applications for qualified health plans described earlier, we also failed to clear an identity-checking step for six of eight Medicaid applications.[36] In these cases, we were likewise directed to contact a contractor that handles identity checking. The contractor was unable to resolve the identity issues and directed us to call the appropriate marketplace. We proceeded to phone the marketplaces. However, as shown in figure 2, the California marketplace did not continue to process one of our Medicaid applications. In this case, our fictitious phone applicant declined to provide what was a valid Social Security number, citing privacy concerns. A marketplace representative told us that, to apply, the applicant must provide a Social Security number. The representative suggested that as an alternative, we could apply for Medicaid in person with the local county office or a certified enrollment counselor.[37]

After we discussed the results of our undercover testing with California officials, they told us their system requires applicants to provide either a Social Security number or an individual taxpayer-identification number to process an application. As a result, because our fictitious applicant declined to provide a Social Security number, our application could not be processed.

Details of Medicaid Applications through the Federal Marketplace

For the four Medicaid applications submitted to the federal Marketplace, we were told that we may be eligible for Medicaid but that the respective Medicaid state offices might require more information. For three of the four applications, federal Marketplace representatives told us we would be contacted by the Medicaid state offices within 30 days. However, the Medicaid offices did not notify us within 30 days for any of the applications. As a result, we subsequently contacted the state Medicaid

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[36]We were not required to go through identity proofing for the two phone applications that went through the federal Marketplace. All phone and online applications from the state marketplaces and the online applications from the federal Marketplace required identity proofing.

[37]Because this was outside the scope of our review of the marketplaces, we did not follow this avenue.

offices and the federal Marketplace to follow up on the status of our applications.

For the two New Jersey Medicaid applications, we periodically called the state Medicaid offices over approximately 4 months, attempting to determine the status of our applications. In these calls, New Jersey representatives generally told us they had not yet received Medicaid information from the federal Marketplace and, on several occasions, said they expected to receive it shortly. After our calls to New Jersey Medicaid offices, we phoned the federal Marketplace to determine the status of our Medicaid applications.

- In one case, the federal Marketplace representative told us New Jersey determined that our applicant did not qualify for Medicaid.[38] As a result, the phone representative stated that we were then eligible for qualified health-plan coverage. We subsequently applied for coverage and were approved for an advance premium tax credit plus the cost-sharing reduction subsidy.

- In the other case, the federal Marketplace representative told us the Marketplace system did not indicate whether New Jersey received the application or processed it. The representative advised we phone the New Jersey Medicaid agency. Later on that same day, we phoned the federal Marketplace again and falsely claimed that the New Jersey Medicaid office denied our Medicaid application. Based on this claim, the representative said we were eligible for qualified health-plan coverage. We subsequently applied for coverage and were approved for an advance premium tax credit plus the cost-sharing reduction subsidy. The federal Marketplace did not ask us to submit documentation substantiating our Medicaid denial from New Jersey.

We asked to meet with New Jersey Medicaid officials to discuss the results of our testing, but they declined our request. CMS officials told us that New Jersey had system issues that may have accounted for problems in our Medicaid application information being sent to the state. CMS officials told us that this system issue is now resolved. In addition, CMS officials told us they do not require proof of a Medicaid denial when processing qualified health-plan applications; nor does the federal

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[38]Earlier that day, in a phone call with the New Jersey Medicaid agency, a representative said—contrary to the federal Marketplace statement—that the agency had not received application information from the federal Marketplace.

Marketplace verify the Medicaid denial with the state. CMS officials said that instead, they accept the applicant's attestation that the applicant was denied Medicaid coverage.

For our North Dakota Medicaid application in which we did not provide a Social Security number but did provide an impossible immigration document number, we called the North Dakota Medicaid agency to determine the status of our application. An agency representative told us the federal Marketplace denied our Medicaid application and therefore did not forward the Medicaid application file to North Dakota for a Medicaid eligibility determination.[39] We did not receive notification of denial from the federal Marketplace. Subsequently, we called the federal Marketplace and applied for subsidized qualified health-plan coverage. The federal Marketplace approved the application, granting an advance premium tax credit plus the cost-sharing reduction subsidy. Because we did not disclose the specific identities of our fictitious applicants, CMS officials could not explain why the federal Marketplace originally said our application may be eligible for Medicaid but subsequently notified North Dakota that it was denied.

For the North Dakota Medicaid application for which we did not provide a valid Social Security identity, we received a letter from the state Medicaid agency about a month after we applied through the federal Marketplace. The letter requested that we provide documentation to prove citizenship, such as a birth certificate. In addition, it requested a Social Security card and income documentation. We submitted the requested documentation, such as a fictitious birth certificate and Social Security card. The North Dakota Medicaid agency subsequently approved our Medicaid application and enrolled us in a Medicaid plan.

After our undercover testing, we briefed North Dakota Medicaid officials and obtained their views. They told us the agency likely approved the Medicaid application because our fake Social Security card would have cleared the Social Security number inconsistency. The officials told us they accept documentation that appears authentic. They also said the agency is planning to implement a new system to help identify when

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[39]As noted earlier, the federal Marketplace representative stated that our application may be eligible for Medicaid but more information may be needed by the Medicaid state offices.

applicant-reported information does not match Social Security Administration records.

Details of Medicaid Applications through State Marketplaces

As with our applications for coverage under qualified health plans, described earlier, the state marketplace for Kentucky directed two of our Medicaid applicants to submit supplementary documentation. As part of our testing and in response to such requests, we provided counterfeit follow-up documentation, such as a fake immigration card with an impossible numbering scheme for these applicants. The results of the documentation submission are as follows:

- For the application where the fictitious identity did not match Social Security records, the Kentucky agency approved our application for Medicaid coverage. In our discussions with Kentucky officials, they told us they accept documentation submitted—for example copies of Social Security cards—unless there are obvious alterations.

- For the Medicaid application without a Social Security number and with an impossible immigration number, the Kentucky state agency denied our Medicaid application. A Kentucky representative told us the reason for the denial was that our fictitious applicant had not been a resident for 5 years, according to our fictitious immigration card. The representative told us we were eligible for qualified health-plan coverage. We applied for such coverage and were approved for an advance premium tax credit and the cost-sharing reduction subsidy. In later discussions with Kentucky officials, they told us the representative made use of an override capability, likely based on what the officials described as a history of inaccurate applicant immigration status information for a refugee population. Kentucky officials also said their staff accept documentation submitted unless there are obvious alterations, and thus are not trained to identify impossible immigration numbers. Finally, Kentucky officials said they would like to have a contact at the Department of Homeland Security with whom they can work to resolve immigration-related inconsistencies, similar to a contact that they have at the Social Security Administration to resolve Social Security-related inconsistencies.

By contrast, during the Medicaid application process for one applicant, California did not direct that we submit any documentation. In this case, our fictitious applicant was approved over the phone even though the fictitious identity did not match Social Security records. We shared this result with California officials, who said they could not comment on the

specifics of our case without knowing details of our undercover application.

As noted earlier, the findings discussed in this statement are preliminary, and we plan to issue a final report later, upon completion of our work.

Chairman Pitts, Ranking Member Green, and Members of the subcommittee, this concludes my statement. I look forward to the subcommittee's questions.

GAO Contact and Staff Acknowledgments

For questions about this statement, please contact Seto Bagdoyan at (202) 512-6722 or BagdoyanS@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement.

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CONSUMER DECISIONS REGARDING HEALTH PLAN CHOICES IN THE 2014 AND 2015 MARKETPLACES

October 28, 2015

By Thomas DeLeire and Caryn Marks

The Affordable Care Act established the Health Insurance Marketplaces (Marketplaces) to provide consumers with choices of affordable health plans offered in a competitive insurance market. The Marketplaces are designed to enable consumers to easily compare different insurance products. The aim is to support consumers in finding an appropriate plan that meets their specific needs and budget. The HealthCare.gov and state-run Marketplace portals offer detailed information about each health insurance plan sold in an area, including the premiums, deductibles, other out-of-pocket costs, provider network, customer service, and more.

This report examines consumer plan choices during the second year of enrollment through the Marketplaces (the 2015 plan year) for those consumers who had selected a Marketplace plan at any time in 2014 in states using the HealthCare.gov platform during 2014 and 2015.[1] During the 2015 open enrollment period, consumers made decisions to stay in the same plan (if it remained available), change their Marketplace health insurance plans, or leave their Marketplace coverage (e.g. enroll in employer-sponsored insurance, off-Marketplace coverage, Medicaid, or Medicare, etc.).

Consumers' decisions to change health insurance plans or issuers may be influenced by a number of factors including a preference for a different premium, provider network, cost-sharing requirements, or issuer. By examining plan switching behavior, we can estimate how responsive consumers are to information and premiums in 2015.

In this issue brief, we specifically focus on how consumers responded to premium differences among health plans in their area, net of any advance payments of the premium tax credit (APTC) for which the consumer was determined eligible for in 2015, when selecting a 2015 plan.

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[1] The analysis is restricted to the 35 states that used the HealthCare.gov platform in both 2014 and 2015. Idaho, Oregon and Nevada are not included in the analysis since they did not use HealthCare.gov both years and plan selection information is not available for both years for these states.

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Key Highlights

- **About one-quarter (23%) of all people with 2014 plans switched to a new plan in 2015.** That is much higher than switching among enrollees in employer-sponsored insurance generally (2.8% in 2010), the Federal Employee Health Benefits Program (12% switched plans in 2001) and Medicare Drug Plans (13% across four enrollment periods).

- **When examining only those people who re-enrolled in coverage through the Marketplace in 2015, about one-third (31%) switched to a new plan in 2015.** Among consumers who re-enrolled in coverage (4.8 million), 1.5 million chose a different plan in 2015.

- **Consumers that switched plans within the same metal level in 2015 saved $33 per month, or nearly $400 annually, relative to what they would have paid had they remained in the same plan as in 2014.** Those who switched issuers as well as plans in the same metal level were able to save $41 per month, or over $490 annually. Consumers that switched plans and also changed metal levels or issuers saved even more, although changing metal levels can lead to higher cost sharing requirements.

- **Among consumers who switched plans, more consumers switched issuers than metal level.** Specifically, 57% of switchers changed issuers in 2015 while only 38% of switchers changed metal level.

- **Among all consumers enrolled in silver level plans in 2014, the majority (72%) stayed in silver plans in 2015. When examining only people who re-enrolled in coverage through the Marketplace in 2015, the vast majority (91%) stayed in a silver level plan.** Enrollment in silver level plans is much higher than other metal level plans—69% of enrollees in 2014 chose a silver plan. The appeal of silver plans for many consumers is that most consumers eligible for cost-sharing reductions can only apply them when enrolled in a silver level plan (approximately 85% of silver enrollees in states using the HealthCare.gov platform received cost-sharing reductions in 2015).

- **Consumers are highly sensitive to net premium price (i.e., premium after premium tax credit).** Moreover, consumers were more sensitive to the premiums of plans in higher metal levels of coverage compared to lower metal levels.

- **Consumers are sensitive to increasing premiums of their own health plan; but changes in premiums of other plans in the rating area matter as well.** For example, a plan that increases its premiums by 10 percent in a rating area in which no other plan increases its premium would see its enrollment decline by 30%. However, if this same plan were to increase premiums in a rating area in which all plans also increased their premiums by 10 percent, enrollment in that plan would decline by only 4%.

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I. CONSUMER PLAN CHOICES IN 2015

Consumers who had Marketplace coverage in 2014 either chose to stay in their same Marketplace plan, switch to a new Marketplace plan, or leave Marketplace coverage (e.g. enroll in employer-sponsored insurance, off-Marketplace coverage, Medicaid, or Medicare, etc.). People who stayed in the same plan in 2015 either actively selected the same plan or were automatically re-enrolled. Figure 1 displays the consumer plan choices for 2014 Marketplace enrollees.

Figure 1: Consumer Plan Choice in the Marketplace
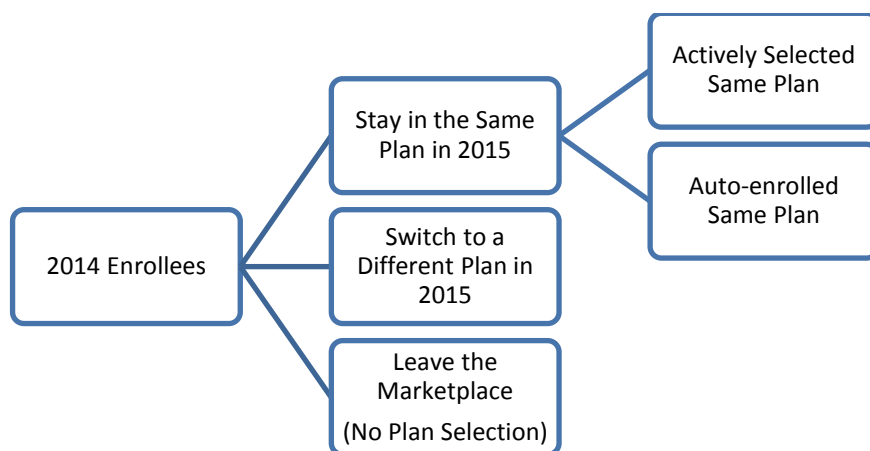
Appendix Table 1A shows the distribution of consumer plan choices of all 2014 Marketplace enrollees. Appendix Table 1B shows the distribution of consumer plan choices for 2014 Marketplace enrollees who selected a plan in 2015 (re-enrollees). For this analysis, all individuals who selected a different plan in 2015 compared to 2014 did so through active re-enrollment. Consumers who selected a "crosswalk plan" are not considered to have selected a new plan.

About one-quarter (23%) of re-enrollees were "switchers" that chose a new Marketplace plan in 2015. The rate of plan switching in the Marketplace is high relative to that reported among employees of firms offering employer sponsored insurance (2.8% in 2010), among participants of the Federal Employee Health Benefits Program (FEHBP; 12% switched plans in 2001) and among elderly consumers enrolled in Medicare Drug Plans (13% across four enrollment periods).[i] This finding is included in Table 1A in the Appendix.

When examining <u>only</u> those people who re-enrolled in coverage through the Marketplace in 2015, about one-third (31%) switched to a new plan in 2015. Among consumers who re-enrolled in coverage (4.8 million), 1.5 million chose a different plan in 2015. This finding is included in Table 1B in the Appendix.

More than half (51%) of 2014 enrollees chose the same plan in 2015. Fifty-one percent of 2014 enrollees were "stayers" that re-enrolled into the same plan in 2015 as in 2014, with most

of those, about 34% of all 2014 enrollees (or 67% of stayers), automatically re-enrolled into the same plan. These findings are included in Table 1A in the Appendix.

When examining only those consumers who re-enrolled in coverage, about two-thirds (69%) chose the same plan in 2015. These findings are included in Table 1B in the Appendix.

Roughly one-quarter of consumers (26% or 1.6 million consumers) who enrolled in coverage through the Marketplaces in 2014 did not select a plan and were not automatically re-enrolled in a Marketplace plan in 2015. Consumers may not have re-enrolled in Marketplace coverage for a variety of reasons including an offer or family member's offer of employer-sponsored insurance, qualifying for other public coverage programs (Medicaid, CHIP or Medicare), a move to a state with a State-based Marketplace (this analysis doesn't include information from those states), a change in income or household status that affected eligibility for premium tax credits, or another reason.

State-level percentages of 2014 enrollees that chose the same plan, switched plans, or did not enroll in Marketplace coverage in 2015 as well as for 2014 enrollees that re-enrolled in coverage in 2015 are reported in Appendix Tables 2A and 2B.

II.   CONSUMER PREMIUM SAVINGS AS A RESULT OF PLAN SWITCHING

Using enrollment and plan data, we compared the difference between the 2015 premium of the plan selected in 2014 and the 2015 premium of the plan enrolled in for 2015 for each consumer who selected a Marketplace plan in both 2014 and 2015. For consumers who switch plans, this difference is the amount the consumer saved on premiums by switching plans. We determined the average premium savings after advance payments of the premium tax credit (APTC) for:

- All 2014 consumers who switched plans in 2015;
- The group of 2014 consumers who switched plans but stayed within the same metal level in 2015 as in 2014; and
- The group of 2014 consumers who switched plans and switched issuers, but stayed within the same metal level in 2015 as in 2014.

Consumers that switched plans but did not switch metal levels in 2015 saved $33 per month, or nearly $400 annually, on premiums relative to what they would have paid had they remained in the same plan as in 2014 (Figure 2). This means consumers who comparison-shopped in 2015 were able to save $33 per month in their net premium expenses without lowering their level of coverage. Consumers that stayed in the same metal level but switched plans and also switched issuers tended to save even more on premiums ($41 per month or over $490 annually).

Overall, all consumers that switched plans saved $40 per month. *However, some of these consumers switched metal levels and switching to a lower metal level typically will be*

accompanied by a reduction in the actuarial value of the plan. Expected out-of-pocket costs may therefore be higher for these consumers.

Figure 2: Monthly Premium Savings for Switchers
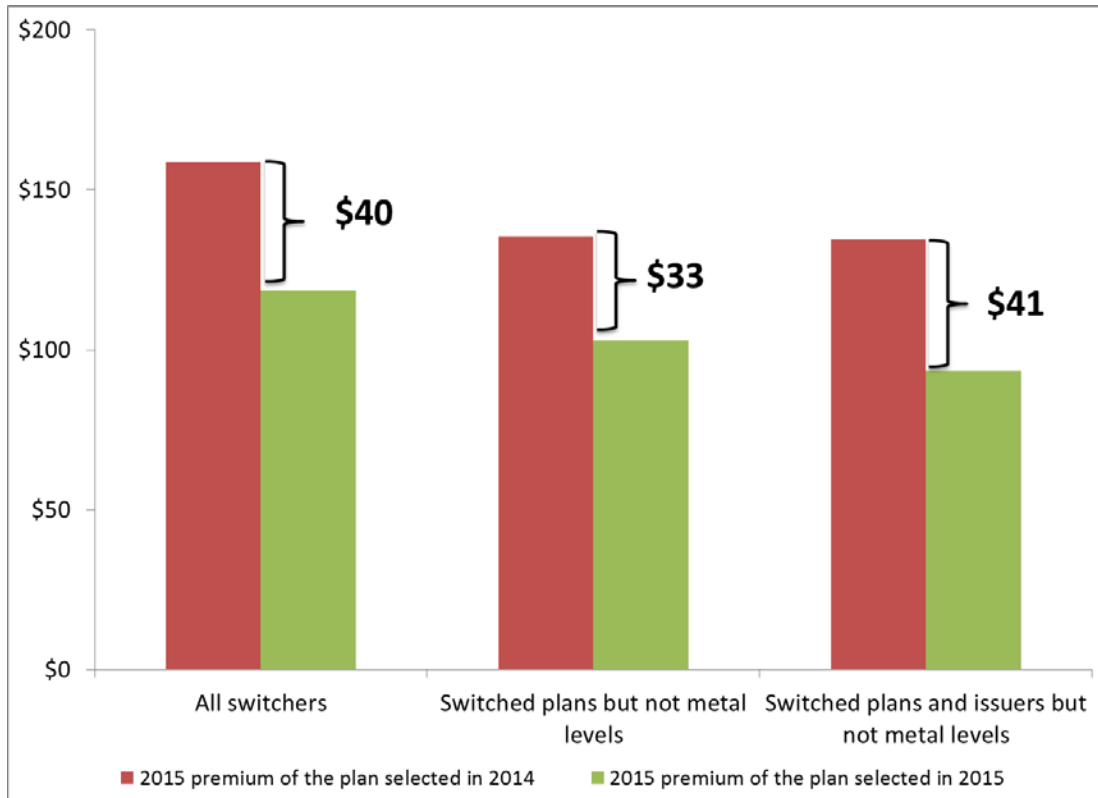
Note: Savings are calculated as the difference between the 2015 premium of the 2015 selected plan and the 2014 selected plan. Calculated for non-tobacco users only. Numbers are rounded to the nearest dollar.

Appendix Table 3 reports state-level savings among 2014 enrollees who chose a new plan and stayed within the same metal level in 2015.

III.   CHARACTERISTICS OF PLAN CHOICE BY METAL LEVEL

To represent different levels of cost sharing, the Affordable Care Act created categories or "metal levels" of coverage that vary based on the share of the total costs of the essential health benefits expected to be received by an average person (also known as actuarial value) paid for by the health plan. Marketplace health plan metal levels range from bronze, with the lowest premiums but the highest cost sharing, to platinum with the highest premiums and lowest cost sharing.[2] Appendix Table 4 shows the distribution of 2014 and 2015 Marketplace enrollment according to metal level. The table also shows the distribution of consumers' plan decisions for 2015 Marketplace enrollment according to metal level (e.g., the portion of 2014 silver plan

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[2] Certain consumers can also enroll in catastrophic plans, designed to appeal to younger, healthier individuals, which have lower premiums and higher deductibles than most bronze plans.

enrollees staying in the same metal level, moving to a plan in a lower metal level, moving to plan in a higher metal level in 2015).

Consumers that switched plans were more likely to change issuers than to change metal level (Table 1). Specifically, 39% of enrollees who changed plans in 2015 also changed issuers but did not change metal levels while only 20% of consumers who changed plans in 2015 also changed metal levels but did not change issuers. Enrollees who changed both their issuer and their metal level represented 18% of consumers who switched plans

Table 1: 2015 Issuer and Metal Level Choices of Switchers		
	Number of Enrollees	**Percent of All Switchers**
Switchers	1.5 million	100%
Changed Plans but not Metal Level or Issuer	340,000	23%
Changed Issuer but not Metal Level	570,000	39%
Changed Metal Level but not Issuer	300,000	20%
Changed Metal Level and Issuer	260,000	18%

The majority of consumers in silver plans stayed in the same metal level of coverage in 2015 (Appendix Table 4). Enrollment in silver level plans is much higher than other metal level plans—69% of enrollees chose a silver plan in 2014. The appeal of silver plans for many of the consumers who are eligible for them is that most consumers eligible for cost-sharing reductions can only apply them when enrolled in a silver level plan (approximately 85% of silver enrollees in states using the HealthCare.gov platform received cost-sharing reductions in 2015)[ii] and the amount of advance payment of premium tax credits is calculated based on the second-lowest cost silver plan in a consumer's rating area.

Switchers that changed their metal level of coverage were twice as likely to choose a lower metal level of coverage in 2015 as a higher metal level of coverage (Appendix Table 4). Among the 9% of 2014 enrollees that changed metal level of coverage, two-thirds chose to change plans to a lower metal level category. Consumers who chose lower metal levels were more likely to have been originally enrolled in gold or platinum plans (21% of gold enrollees and 25% of platinum enrollees who switched plans chose a lower metal level) and typically these consumers chose silver level plans.

Enrollees in catastrophic level coverage were more likely to leave the Marketplace and the least likely to stay in the same level of coverage compared to other enrollees (Appendix Table 4). Enrollment in catastrophic level coverage was much lower than metal level coverage with only 2% of all 2014 enrollees selecting a catastrophic plan. While access to catastrophic plans was limited to consumers under the age of 30 or who qualified for a "hardship or affordability exemption," only 17% of consumers who initially chose this level of coverage in 2014 enrolled in the same level of coverage in 2015. Among the catastrophic enrollees, 63%

terminated their coverage and 19% selected a new plan in a metal level category (and the majority of these consumers selected bronze plans).

IV. THE EFFECT OF PREMIUM COMPETITION AMONG PLANS ON CONSUMER CHOICE IN 2015

Each year, premium rates are filed by issuers and approved by states. Between 2014 and 2015, premiums for the second-lowest cost silver plan (also called the benchmark plan) increased modestly, by 2% on average before tax credits. The plans offering the lowest prices sometimes changed from 2014 to 2015, so consumers often faced different market conditions in the second year of open enrollment and thus might well have benefited from shopping for a new plan.[3]

Because premium tax credits are based in part on the premium of the second lowest cost silver plan in a specific rating area, how consumers' net premiums change from 2014 to 2015 will depend not only on the change in premiums, but also on the change in the premium of the benchmark plan in the rating area and on any change in family size, household income, or other eligibility information, such as access to other minimum essential coverage. An example of how premium increases affect tax credits is included in the Methods section.

MODELING CONSUMER RESPONSIVENESS TO PLAN PREMIUMS

In addition to examining the descriptive statistics of 2015 consumer plan choices of 2014 Marketplace enrollees, we estimated consumer responsiveness to plan premiums using a statistical model of consumer choice of Marketplace health insurance plans. Under this statistical model, 2015 plan choices are hypothesized to depend upon premium differences among health plans in the rating area, net of any advance payments of the premium tax credit (APTC) the consumer might have received holding constant other factors. A more complete discussion of the statistical model used is presented in the Methods section of this report.

Consumers are sensitive to net premiums when selecting a plan. Consumers are less likely to select a plan if its premium, net of any advance payment of the premium tax credit, is high relative to the net premiums of other plans in the rating area. Table 2 shows the degree of this consumer responsiveness, by metal level of the plan. For example, consumers are 16% less likely to enroll in a catastrophic plan with a premium that is 10% higher relative to other plans in the rating area.

Table 2 also shows consumers were more sensitive to the premiums of plans in higher metal levels of coverage compared to lower metal levels. For example, a platinum plan with a 10% higher premium in 2015 relative to other plans in the rating area was 37% less likely to be selected by consumers. Similarly, a silver plan with a premium in 2015 that is 10% higher relative to other premiums was 24% less likely to be selected by consumers.

These reductions represent a substantial degree of consumer responsiveness. Such responsiveness can contribute to a market environment in which there exists a strong competitive

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[3] http://aspe.hhs.gov/health/reports/2015/premiumreport/healthpremium2015.pdf

incentive for issuers to keep premiums low so as to preserve enrollment and protect against significant losses in revenue (that might follow a premium increase greater than the rating area average).[4]

Table 2: Degree of Consumer Responsiveness of Plan Choice to the Premium of the Plan	
Coverage Level	**Percent Reduction in Likelihood of Selecting a Plan in Response to a 10% Increase in the Plan Premium**
Catastrophic	16%
Bronze	20%
Silver	24%
Gold	28%
Platinum	37%

Note: Calculated based on state-level analysis of enrollment data from the 35 states that use the HealthCare.gov platform in both 2014 and 2015.

Consumer responsiveness to net premium increases also depends upon the landscape of premium changes in the rating area. We assess how consumer responsiveness to an increase in a plan's premium varies with whether the premiums of competing plans also increase. For example, a plan that increases its premiums by 10% in a rating area in which no other plan increases its premium would see its enrollment decline by 30%. However, if this same plan were to increase premiums in a rating area in which all plans also increased their premiums by 10%, enrollment in that plan would decline by only 4%.

This range of responsiveness underscores that simply examining average premium increases in a state or rating area is insufficient to determine the impact of these increases on consumers' propensity to change plans. In areas in which there is a wider range of premium increases, consumers are more likely to switch into more affordable plans.

Because premium tax credits are based in part on the premium of the second lowest cost silver plan in a specific rating area, how consumers respond to premium increases will depend both on the change in the premium of the chosen plan and on the premium of the benchmark plan in the rating area. An example of how premium increases affect tax credits is included in the Appendix.

V. THE ASSOCIATION BETWEEN CONSUMER DEMOGRAPHICS AND 2015 PLAN CHOICE

Finally, we examine differences in plan choices by key enrollee characteristics to understand if plan choice patterns in 2015 varied by a number of demographic factors. Using information collected from the Marketplace enrollment applications, the characteristics examined included: gender, age, ethnicity, marital status, income, family size, tobacco usage, and enrollment

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[4] In particular, these estimates suggest that the price-elasticity of demand for Marketplace plans is "elastic" (or greater than 1). See, for example, Krugman, Paul and Robin Wells (2008) *Microeconomics* (2nd ed.), Ch. 6. Worth: New York for an explanation of how increases in the price of elastically-demanded products can generally lead to reductions in revenues by the firms producing those products.

assistance.[5] Characteristics of all 2014 enrollees as well as characteristics by 2015 plan choice are reported in Appendix Table 5.

We found very few demographic differences among consumers based on their plan selections in 2015. Consumers who switched plans and those who actively selected to stay in their plan were similar in terms of race, marital status, family size and receipt of financial assistance. Furthermore, they were similar to all enrollees. For example, 91% of 2014 enrollees who actively selected the same plan in 2015 as in 2014 were eligible for premium tax credits in 2014, as compared to 84% for 2014 enrollees overall.

VI.   CONCLUSIONS

There are a variety of factors that may influence a consumer's decision to switch health insurance plans. Consumers may have a preference for a different issuer, provider network, cost-sharing requirements or premium. Understanding plan selection behavior can serve as a proxy for estimating how responsive consumers are to information and their sensitivity to premiums.

The findings from this analysis show that consumers are sensitive to the premium they pay when enrolling in health insurance plans. Similar to 2014 where 65% of enrollees chose the lowest or second lowest premium, 2014 Marketplace consumers tended to gravitate towards silver level plans in their 2015 plan enrollments, most likely because cost-sharing subsidies generally are only available for consumers who select silver plans.[iii] Among 2014 consumers who changed plans and metal levels, most chose a silver plan in 2015. Notably, enrollment in catastrophic coverage was very low in 2014, and those enrollees overwhelmingly either terminated their coverage or chose a different metal level in 2015.

Additionally, consumers are sensitive to net premiums when making their 2015 plan selections. Enrollment data showed that consumers were likely to switch plans when the premium of their 2014 selected plan increased substantially. As a result, consumers who changed plans in 2015 saved a substantial amount of money by doing so. Our statistical modeling of consumer plan selection showed that consumers were sensitive to the entire landscape of premiums in their rating area, both because they can choose among many similar products within their rating area and because of how eligibility for advance premium tax credit is determined.

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[5] The data on race and ethnicity should be interpreted with caution since more than one-third of enrollees did not provide this information.

VII.   APPENDIX TABLES

Appendix Table 1A: 2014 Enrollees by Plan Choice in 2015		
	Number of Enrollees	**Percent of Enrollees**
2014 Total Enrollees	6.4 million	100%
Stayers (Chose the Same Plan in 2015)	3.3 million	51%
Active re-enrollee	*1.1 million*	*17%*
Auto re-enrollee	*2.2 million*	*34%*
Switchers (Chose a Different Plan in 2015)	1.5 million	23%
Leavers (Did not choose a plan in 2015)	1.6 million	26%

Notes: Information on plan choices are for enrollees in the 35 states that used the HealthCare.gov platform for both the 2014 and 2015 plan years. 2014 enrollees include those who selected plans during open enrollment period 1 (OEP1) and those who enrolled in a plan during a Special Enrollment Period (SEP). 2015 enrollees includes those who enrolled a plan by 2/22/2015, but excludes those whose enrollment was terminated prior to 3/1/2015.

Appendix Table 1B: Re-Enrollees by Plan Choice in 2015		
	Number of Enrollees	**Percent of Enrollees**
2015 Total Re-Enrollees	4.8 million	100%
Stayers (Chose the Same Plan in 2015)	3.3 million	69%
Active re-enrollee	*1.1 million*	*46%*
Auto re-enrollee	*2.2 million*	*23%*
Switchers (Chose a Different Plan in 2015)	1.5 million	31%

Notes: Information on plan choices are for enrollees in the 35 states that used the HealthCare.gov platform for both the 2014 and 2015 plan years. 2014 enrollees include those who selected plans during open enrollment period 1 (OEP1) and those who enrolled in a plan during a Special Enrollment Period (SEP). 2015 enrollees includes those who enrolled a plan by 2/22/2015, but excludes those whose enrollment was terminated prior to 3/1/2015.

Appendix Table 2A					
2015 Plan Choice of 2014 Consumers by State					
	Chose same plan in 2015			Chose a new plan in 2015	Did not chose a plan in 2015
State	All	Auto	Active		
All 35 States	*51%*	*34%*	*17%*	*23%*	*26%*
AK	43%	23%	20%	33%	24%
AL	65%	33%	32%	11%	24%
AR	66%	49%	17%	13%	22%
AZ	55%	43%	12%	27%	18%
DE	56%	38%	18%	16%	28%
FL	43%	25%	18%	32%	25%
GA	54%	38%	16%	22%	24%
IA	30%	21%	9%	25%	44%
IL	59%	42%	17%	16%	25%
IN	49%	37%	12%	27%	24%
KS	50%	36%	15%	24%	25%
LA	52%	36%	15%	24%	24%
ME	64%	29%	35%	17%	19%
MI	56%	42%	14%	16%	28%
MO	50%	34%	16%	26%	25%
MS	58%	47%	11%	19%	23%
MT	59%	40%	19%	21%	19%
NC	53%	26%	26%	23%	24%
ND	52%	31%	21%	25%	23%
NE	22%	14%	8%	37%	40%
NH	47%	35%	12%	26%	27%
NJ	48%	33%	16%	26%	26%
NM	59%	45%	13%	15%	26%
OH	50%	37%	13%	22%	28%
OK	55%	39%	16%	21%	25%
PA	60%	44%	16%	16%	23%
SC	52%	37%	15%	22%	26%
SD	52%	40%	12%	25%	24%
TN	44%	29%	14%	17%	39%
TX	52%	35%	17%	21%	27%
UT	56%	40%	16%	20%	24%

VA	54%	32%	23%	21%	25%
WI	48%	31%	16%	27%	25%
WV	60%	38%	22%	15%	25%
WY	56%	39%	17%	26%	18%

Notes:

Information is for enrollees in the 35 states that used the HealthCare.gov platform for both 2014 and 2015. 2014 enrollees include those who selected plans during OEP1 and those who selected plans during a Special Enrollment Period.

2015 enrollees include those who selected a plan by 2/22/2015, but exclude those whose plans were terminated prior to 3/1/2015.

Appendix Table 2B				
2015 Plan Choice of Re-Enrollees by State				
	Chose same plan in 2015			Chose a new plan in 2015
State	All	Auto	Active	
All 35 States	69%	46%	23%	31%
AK	56%	30%	27%	44%
AL	85%	43%	42%	15%
AR	84%	63%	21%	16%
AZ	67%	52%	15%	33%
DE	78%	53%	25%	22%
FL	58%	33%	24%	42%
GA	71%	50%	22%	29%
IA	55%	38%	17%	45%
IL	79%	56%	23%	21%
IN	64%	48%	16%	36%
KS	68%	48%	20%	32%
LA	68%	48%	20%	32%
ME	79%	35%	44%	21%
MI	78%	58%	19%	22%
MO	66%	45%	21%	34%
MS	75%	61%	14%	25%
MT	73%	50%	23%	27%
NC	69%	35%	34%	31%
ND	68%	40%	27%	32%
NE	38%	24%	14%	62%
NH	64%	48%	16%	36%

NJ	65%	44%	21%	35%
NM	80%	62%	18%	20%
OH	70%	51%	18%	30%
OK	73%	52%	21%	27%
PA	79%	58%	21%	21%
SC	70%	51%	20%	30%
SD	68%	52%	15%	32%
TN	72%	48%	24%	28%
TX	71%	48%	23%	29%
UT	73%	52%	21%	27%
VA	72%	42%	30%	28%
WI	64%	42%	22%	36%
WV	80%	51%	29%	20%
WY	68%	47%	21%	32%

Notes:
Information is for enrollees in the 35 states that used the HealthCare.gov platform for both 2014 and 2015. Re-enrollees include those who selected plans during OEP1 and those who selected plans during a Special Enrollment Period as well as those who returned to the Marketplace and selected a plan in 2015 by 2/22/2015. The analysis excludes those whose plans were terminated prior to 3/1/2015.

	Appendix Table 3			
	Premium Savings from Switching Plans within Metal Levels by State			
State	Number of 2014 Enrollees that Chose a New Plan in 2015 and Stayed within the Same Metal Level	Average Monthly Premium Savings of Switchers	Average Annual Premium Savings of Switchers	Annual State-level Savings from Switching
All 35 States	*785,809*	*$33*	*$390*	*$306,474,438*
AK	2,770	$36	$432	$1,195,870
AL	5,493	$16	$193	$1,057,512
AR	3,237	$18	$220	$712,561
AZ	22,361	$42	$507	$11,347,095
DE	1,014	$6	$67	$67,774
FL	198,159	$39	$465	$92,050,507
GA	40,923	$20	$238	$9,741,003
IA	1,144	$18	$222	$253,931
IL	21,586	$11	$127	$2,748,726
IN	26,630	$32	$379	$10,104,653
KS	8,349	$28	$340	$2,841,625
LA	16,354	$58	$699	$11,424,210
ME	4,541	$16	$188	$852,064
MI	25,237	$24	$287	$7,234,680
MO	23,887	$33	$395	$9,425,376
MS	7,863	$54	$642	$5,049,230
MT	4,786	$28	$331	$1,582,285
NC	56,106	$40	$482	$27,068,126
ND	1,986	$19	$226	$449,633
NE	3,413	$57	$682	$2,327,477
NH	7,386	$19	$233	$1,719,651
NJ	33,545	$55	$663	$22,239,059
NM	3,186	$24	$290	$923,403
OH	18,411	$37	$447	$8,225,391
OK	9,126	$28	$335	$3,058,438
PA	29,168	$50	$603	$17,578,294
SC	17,503	$14	$173	$3,034,079
SD	2,300	$39	$468	$1,076,197
TN	16,613	$15	$179	$2,976,431

TX	100,555	$23	$276	$27,763,159
UT	11,852	$6	$76	$900,628
VA	27,515	$12	$141	$3,872,282
WI	28,767	$43	$515	$14,801,429
WV	1,854	$8	$92	$171,490
WY	2,189	$23	$274	$600,167

Note: Information is from enrollees in the 35 states that used the HealthCare.gov platform for both 2014 and 2015. Savings is calculated as the difference between the 2015 premium of the 2015 selected plan and the 2015 premium of the 2014 selected plan and is calculated only on the 785,809 non-tobacco using enrollees who switched plans but not metal levels between 2014 and 2015.

	2014 Metal Level of 2014 Enrollees			Percent who:				2015 Metal Level of 2014 Enrollees	
Appendix Table 4: Distribution of and Changes in Metal Level									
	Number in Millions	Percent		Stayed in Same Metal Level	Chose a Plan with a HIGHER Metal Level	Chose a Plan with a LOWER Metal Level	Did Not Select a Plan	Number in Millions	Percent
Catastrophic	0.1	2%		17%	19%	--	63%	0.02	<1%
Bronze	1.1	17%		56%	10%	<1%	34%	0.8	13%
Silver	4.4	69%		72%	1%	5%	22%	3.4	53%
Gold	0.6	9%		51%	1%	21%	27%	0.3	5%
Platinum	0.3	4%		46%	--	25%	29%	0.1	2%
No Plan	--	--		--	--	--	--	1.6	26%
Total	6.4	100%		66%	3%	6%	26%	6.4	100%

Appendix Table 5: Characteristics of 2014 Enrollees by 2015 Plan Decisions						
	All 2014 Enrollees	"Stayers"			"Switchers"	"Leavers"
		All	Auto	Active		
Gender						
Male	45%	45%	46%	43%	44%	46%
Age						
Average age	40	41	40	43	42	38
Aged 20 or less	12%	12%	12%	11%	12%	13%
Race and Ethnicity						
White	73%	75%	75%	76%	74%	69%
Black	17%	15%	16%	13%	15%	24%
Asian	8%	9%	8%	10%	10%	6%
Native American	1%	1%	1%	1%	1%	1%
Native Hawaiian / Pacific Islander	<1%	<1%	<1%	<1%	<1%	<1%
Hispanic	7%	7%	7%	6%	7%	8%
Marital Status						
Married	43%	43%	40%	50%	47%	38%
Income						
FPL < 150	38%	41%	41%	39%	37%	35%
FPL > 150 & < 200	23%	24%	23%	25%	23%	20%
FPL > 200 & < 250	13%	13%	13%	13%	15%	12%
FPL > 250 & < 400	14%	14%	13%	15%	16%	14%
FPL > 400	12%	9%	10%	7%	9%	19%
APTC Eligible in 2014	84%	87%	85%	91%	87%	73%
Family Size						
Family size	2.4	2.4	2.4	2.5	2.5	2.3
No. of family members in same plan	1.8	1.8	1.8	2.0	1.9	1.7
Enrollment Assistance						
Received any enrollment assistance in 2014	38%	39%	40%	39%	39%	33%
Received any enrollment assistance in 2015	36%	33%	31%	36%	42%	N/A
Note: The data on race and ethnicity should be interpreted with caution since more than one-third of enrollees did not provide this information.						

VIII.   APPENDIX: DATA AND METHODS

Data

The analyses in this brief used data obtained from the information systems of the Centers for Medicare & Medicaid (CMS), based on information collected for the 35 states using the HealthCare.gov platform in both 2014 and 2015. Data on 2014 enrollment into Marketplace medical plans were collected for all plans chosen during the 2014 Open Enrollment Period of 10/1/2013 through 3/31/2014, as well as for plans chosen during any Special Enrollment Period (SEP) through the start of the 2015 Open Enrollment Period. Data on 2015 enrollment into Marketplace medical plans were collected for all plans chosen during the 2015 Open Enrollment Period for 11/15/2014 through 2/15/2015 (including SEP activity through 2/22/2015). Enrollment is "pre-effectuated" enrollment; enrollment is not considered effectuated until the first premium payment is made. Thus, the analysis includes plan selections for which enrollment was not effectuated.

2014 enrollment includes all plans chosen by unique individuals in 2014, including those that were subsequently terminated prior to the start of the 2015 Open Enrollment Period. For individuals selecting more than one plan in a calendar year, only the most recently selected plans was used in this analysis.

As a result, this analysis considers the 2015 plan choices of 6.4 million individuals who selected a plan in 2014. Our numbers here differ from those in the March 2015 Enrollment Report. According to the March 2015 Enrollment report, 5.4 million individuals selected a plan during the 2014 Open Enrollment Period (including SEP activity through 4/19/2014). This number differs from ours (6.4 million) because this analysis also considers the nearly 1.0 million individuals who selected a plan in 2014 for the first time during an SEP. (More than 0.5 million additional individuals selected a new plan in 2014 during an SEP after having selected a plan during the OEP; for these individuals, this analysis considers the plan selected during the SEP as the "final" plan selection.)

2015 enrollment includes all plans chosen by unique individuals in 2015 but excludes plan enrollments that were terminated prior to 3/1/2015. As with 2014, for individuals selecting more than one plan in a calendar year, only the most recently selected plans were used.
The analysis is restricted to the 35 states that used the HealthCare.gov platform in both 2014 and 2015. Idaho switched from using the HealthCare.gov platform in 2014 to using its own Marketplace platform in 2015. Oregon and Nevada switched from using their own Marketplace platforms in 2014 to using the HealthCare.gov platform in 2015. Thus, enrollment from Idaho, Oregon, and Nevada are not included in the analysis as plan selection information for these states in both years was not available for the purposes of this analysis.

A limitation of these data is that they do not indicate whether a 2014 consumer that did not choose to enroll in a Marketplace plan in 2015 instead chose to enroll into Medicaid, Medicare, or private insurance, or another form of coverage, or whether he is she enrolled in Marketplace coverage through a State-based Marketplace.

Plan Selection

This analysis characterizes 2014 enrollees in the 35 states using the HealthCare.gov platform in both 2014 and 2015 as having in 2015, selected the same Marketplace plan, selected a different Marketplace plan, or having not selected a Marketplace plan. Among those who selected the same Marketplace plan, we further characterize these enrollees as having been passively re-enrolled or having actively re-enrolled into that plan. All individuals who selected a different plan did so through active re-enrollment.

We define a 2014 consumer as having chosen a different plan in 2015 if that consumer selected a 2015 plan with a different plan ID as their 2014 plan. Information on plan IDs are obtained from the Landscape files available at HealthCare.gov. Some plans changed their IDs slightly from 2014 to 2015; these plan IDs are considered identical to their 2014 plan IDs for the purposes of this analysis. Some consumers' 2014 plans were no longer active for 2015 but the issuer offered a plan with similar benefits, known as a "crosswalk plan." Consumers who selected a "crosswalk plan" are not considered to have selected a new plan.

We define a 2014 consumer as having chosen the same plan in 2015 if that consumer selected a 2015 plan with either the same plan ID than their 2014 plan or a "crosswalk plan."
In this analysis, a 2014 consumer could be considered as having chosen a different plan or the same plan in 2015 as they did in 2014 even if they did not have an active Marketplace plan as of November 1, 2014 so long as that consumer had chosen a 2014 plan at some point prior to November 1, 2014.

Active re-enrollees include those consumers who returned to the HealthCare.gov portal, updated their information, and selected a plan at any time between the beginning of the 2015 Open Enrollment Period and 2/22/2015. Active re-enrollees include re-enrollees who selected a different plan than in 2014 and some re-enrollees who selected the same plan as in 2014. Automatic re-enrollees include those who had a Marketplace plan as of November 1, 2014 but did not actively select a plan prior to 12/15/2014. These consumers were automatically re-enrolled into their 2014 plan or into a crosswalk plan. If such a consumer actively updated his or her information or actively selected a different plan after 12/15/2014 but before 2/22/2015, they are considered an active re-enrollee for the purposes of this analysis.

Automatic re-enrollees whose plan was no longer available in 2015 were re-enrolled in a crosswalk plan, if available. For the purposes of this brief, active re-enrollees who selected the crosswalk plan for the 2015 coverage year (identified based on information provided to CMS by the insurance companies) are considered having actively selected to remain in the same plan. Individuals who did not select a plan in 2015 include all those 2014 enrollees with no plan selection in 2015. These individuals include enrollees who had no active plan as of November 1, 2014 and who did not return to the Marketplace in 2015. This measure also includes individuals who either actively selected or passively selected a plan during the 2015 Open Enrollment Period who subsequently terminated that plan prior to 2/22/2015.

The March 2015 enrollment brief reported that there were 4.2 million consumers that re-enrolled into Marketplace plans in 2015, while this report indicates that there were 4.5 million re-enrolling consumers. The difference between these two figures is due to the fact that the 4.2 million figure is restricted to 2014 consumers with an active plan as of November 1, 2014. That is, 0.3 million consumers selected a plan in 2014 but their plan selection was not active on November 1, 2015. Similarly, the March 2015 brief indicated that 1.0 million consumers actively re-enrolled into the same plan and 1.2 million selected a different plan, while the corresponding numbers reported in the brief as 1.1 million and 1.5 million respectively. Once again, the difference is due to the fact that this report considers consumers that selected a plan in 2014 but whose plan selection was not active on November 1, 2015 and who selected a Marketplace plan in 2015 as re-enrolling consumers.

Premiums

Information on the 2014 and 2015 premiums of plans were obtained from the Landscape files available at HealthCare.gov. Each plan has an "Age 21" premium for non-tobacco users. A person's premium is calculated by adjusting the Age 21 premium according to the HHS default standard age curve and any relevant tobacco-use adjustment factors. A person's net premium is determined by subtracting that person's share of their family's premium tax credit that the family elects to receive in advance from the premium. The premium tax credit is the difference between the family's expected premium contribution and the cost of the benchmark plan premium for enrolled family members.

Among individuals who selected a different plan in 2015 than in 2014, we calculate an individual's savings as the difference between their 2015 net premium and what that person would have paid for a net premium in 2015 net premium had they stayed in the same plan as in 2014 .

The following example shows how premium increases affect tax credits: If a silver plan's monthly premium increased by $25, and the benchmark premium in the same rating area also increased by $25, then the consumer's premium tax credit would increase by $25 such that the net premium increase faced by the consumer would be $0 (the cost to taxpayers would increase by $25, however). On the other hand, if the benchmark premium instead did not increase, then both subsidy-eligible and subsidy ineligible consumers would face the full $25 increase and would have a greater incentive to choose a lower-cost plan.

Analytic Modeling

We estimate McFadden's choice model (McFadden 1974), in a consumer's choice among a set of Marketplace plans where choice is modeled to depend upon the individual consumer's net premium for a Marketplace plan and on the change in the premium of consumer's 2014 selected plan.

In this model, the probability that a consumer *i* chooses plan *j* (out of a possible J plans to pick from) is given by:

$$(1) \qquad P_{ij} = \frac{e^{\beta_j X_i + \gamma Z_{ij}}}{\sum_{k=1}^{J} e^{\beta_k X_i + \gamma Z_{ik}}},$$

where:

        X_i is a set of enrollee characteristics and

        Z_{ij} is a set of plan characteristics (that also might vary by enrollee) such as the net premium.

This model is estimated separately for each FFM state.[6] Since the predicted probabilities of enrollees choosing plan are functions of net premiums, changes in these probabilities in response to changes in the premiums of any or all of the set of plans consumers have to choose from can be determined.

Own-Price Elasticities

The coefficients from the choice model can be used to calculate own-price elasticities, which can be interpreted as a measure of how responsive consumers are to the premium when choosing Marketplace plans. These elasticities are calculated for each plan as:

$$(2) \quad \varepsilon_j = \sum_i \left(1 - \widehat{P}_{ij}\right) \times \left(\gamma \times agefactor_i\right) \times Age21Premium_j,$$

where γ is the estimated coefficient on the net premium from the choice model.

Simulations

The predicted probabilities from the choice model are used to simulate how plan enrollments would change if the premiums in a rating area were different. In particular, we consider the following two situations on a plan's enrollment: (1) a plan's premium increases by 10 percent, but no other plan increases its premium (and the benchmark premium does not change); and (2) a plan's premium increases by 10 percent and all other plans (including the benchmark plan) also increase premiums by 10 percent.

We calculate the percent change in enrollment under scenario (1) as:

$$(3) \quad \varepsilon_j = \left(\sum_i \ddot{P}_{ij} - \sum_i \widehat{P}_{ij}\right) \times 2 / \left(\sum_i \ddot{P}_{ij} + \sum_i \widehat{P}_{ij}\right)$$

where

    $\widehat{P}_{ij}$ is the baseline predicted probability that enrollee i selects plan j and

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[6] We model was estimated separately by state both for computational reasons and to allow for differential responsiveness of consumers by state, which might have occurred because of geographic differences in marketing and outreach efforts.

$\ddot{P}_{ij}$ is the counterfactual predicted probability that enrollee *i* selects plan *j* under scenario 1 (where plan j and no other plan increase premiums by 10%).

We calculate the percent change in enrollment under scenario (2) as:

$$(3) \quad \varepsilon_j = \left(\sum_i \ddot{P}_{ij} - \sum_i \hat{P}_{ij} \right) \times 2 / \left(\sum_i \ddot{P}_{ij} + \sum_i \hat{P}_{ij} \right)$$

where

$\hat{P}_{ij}$ is the baseline predicted probability that enrollee *i* selects plan *j* and
$\ddot{P}_{ij}$ is the counterfactual predicted probability that enrollee *i* selects plan *j* under scenario 2 (where plan j as well as all other plans increase premiums by 10%).

We calculate these simulated percent changes in enrollments for each plan in each rating area. The overall estimate is the straight average of these changes over rating-area specific plans.

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Hoadley, et al., "To Switch or Not to Switch: Are Medicare Beneficiaries Switching Drug Plans to Save Money," Kaiser Family Foundation 2013.
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[ii] Effectuated Enrollment Snapshot, June 30, 2015, CMS, 2015,
https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-09-08.html.
[iii] Burke, et al,. "Premium Affordability, Competition, and Choice in the Health Insurance Marketplace, 2014," ASPE/HHS, 2014, http://aspe.hhs.gov/sites/default/files/pdf/76896/2014MktPlacePremBrf.pdf.

HEALTH PLAN CHOICE AND PREMIUMS IN THE 2016 HEALTH INSURANCE MARKETPLACE

By: Kelsey Avery, Mathias Gardner, Emily Gee, Elena Marchetti-Bowick, Audrey McDowell, & Aditi Sen

October 30, 2015

When the 2016 Open Enrollment Period begins on November 1, 2015, millions of Americans can once again shop for high-quality, affordable health care coverage in the Health Insurance Marketplace established by the Affordable Care Act.[1] Our research indicates that the Affordable Care Act is continuing to promote competition, choice, and affordability in the Marketplace for plan year 2016.

This year, the Marketplace is welcoming new consumers and encouraging those who have previously enrolled to come back, update their information and select the plan that best meets their needs and budget. All plans in the Marketplace cover essential health benefits and recommended preventive care, and no one may be excluded based on preexisting conditions. Consumers can see detailed information about each health insurance plan, in addition to estimated yearly out-of-pocket expenses, offered in their area before they apply. Factors they may consider in choosing a health insurance plan include premiums, deductibles, out-of-pocket costs, provider network, formulary, customer service and more.[2] Consumers may be eligible for financial assistance to help pay for the cost of premiums. In fact, 86 percent of consumers who selected a Marketplace plan in 2015 received financial assistance.[3]

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[1] The Health Insurance Marketplace includes the Marketplaces established in each of the states (and the District of Columbia) and run by the state or the federal government. This report focuses on individual market Marketplaces using the HealthCare.gov eligibility and enrollment system. This analysis excludes stand-alone dental plans.

[2] This brief does not analyze consumers' final expenses, after considering other health plan features, such as deductibles and copayments. Consumers may examine all elements of health insurance plans in order to estimate expected total out-of-pocket costs. Moreover, while premium tax credits can be applied to a plan in any metal tier with the exception of catastrophic plans, cost-sharing reductions based on household income are available only for silver plans.

[3] This represents the percentage of individuals who selected a Marketplace plan and qualified for an advance premium tax credit (APTC), with or without a cost-sharing reduction. See: U.S. Department of Health and Human

This brief presents analysis of Qualified Health Plan (QHP) data in the individual market Marketplace, focusing on the states that use the HealthCare.gov Marketplace platform, and providing a look at the plan choice that new and returning consumers will see for 2016.[4] It also examines plan affordability in 2016 after taking into account premium tax credits.

Key Findings

- The Affordable Care Act continues to promote access to affordable Marketplace health insurance plans in 2016 by creating a Marketplace where consumers can chose the health insurance product that best meets their needs and budget.

<u>Affordability</u>
- More than 8 in 10 (86 percent) current Marketplace enrollees can find a lower premium plan in the same metal level before tax credits by returning to the Marketplace to shop for coverage. If all consumers switched from their current plan to the lowest-cost premium plan in the same metal level, the total savings would be $4.5 billion. In 2015, nearly one-third of consumers who reenrolled in a Marketplace plan switched to a new plan.

- More than 7 in 10 (72 percent) current Marketplace enrollees can find a plan for $75 in premiums or less per month, after any applicable advance premium tax credits in 2016. Nearly 8 in 10 (78 percent) current Marketplace enrollees can find a plan for $100 in premiums or less per month, after any applicable tax credits in 2016.

- Nearly 6 in 10 (57 percent) can find a plan for $75 in premiums or less within their metal level. Nearly 7 in 10 (66 percent) can find a plan for $100 in premiums or less within their metal level.

- A 27-year-old with an income of $25,000 a year will on average get an annual tax credit of $1,164—compared to $972 in 2015. A typical family of four with an income of $60,000 will on average receive an annual tax credit of $5,568—compared to $4,848 in 2015. Marketplace tax credits adjust to match changes in each consumers' benchmark

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Services, "Health Insurance Marketplaces 2015 Open Enrollment Period: March Enrollment Report," *ASPE Issue Brief*, ASPE, March 10, 2015, available at: http://aspe.hhs.gov/pdf-document/health-insurance-marketplace-2015-open-enrollment-period-march-enrollment-report.
[4] The 38 states are included in this analysis are: Alabama, Alaska, Arizona, Arkansas, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, Nevada, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming. However, some tables are limited to the 35 states that were included in the 2014 Marketplace landscape files (excluding Nevada, Oregon, and Hawaii), and some additional tables exclude data for Hawaii (which is beginning to use the HealthCare.gov platform for the 2016 coverage year and is only included on the 2016 landscape file).

silver plan premium.

Choice

- The average number of issuers remained stable between 2015 and 2016. The average consumer has 10 issuers in their state, up from 9 in 2015 and 8 in 2014. On average, consumers can choose from 5 issuers for 2016 coverage, just as they could for 2015 coverage. Consumers had a choice of 4 issuers on average in 2014 (Table 1a).

- Like last year, neary 9 out of 10 consumers returning to the Marketplace will be able to choose from 3 or more issuers for 2016 coverage (Figure 1). Previous research across a variety of product markets suggests that price competition typically intensifies with three or more competitors in a market.

Overview

The Affordable Care Act is continuing to create a dynamic, competitive Marketplace, with considerable choice and affordable premiums in 2016. During the third Marketplace Open Enrollment Period, consumers will continue to have an opportunity to comparison shop and select the plan that best meets their needs and budget. Choice also means competition between plans that in turn results in downward pressure on premiums.

The second-lowest cost silver plans are significant because the premium tax credits that are available to help make Marketplace coverage more affordable are calculated based on the premium for those plans.[5] The Centers for Medicare & Medicaid Services (CMS) recently announced the premium of the second-lowest cost silver plan will increase by 7.5 percent on average for the 2016 plan year.[6] The CMS snapshot analyzes percent changes in the second-lowest cost silver plan from 2015 to 2016—determined by full premium price. (In a small percentage of counties, the second-lowest cost plan determined by full premium price may not be the benchmark silver plan for a consumer.)

This brief identifies the second-lowest cost silver *benchmark* plan based on the portion of the premium that covers essential health benefits (EHB), which may be less than the full premium price charged by issuers.[7, 8] Based on this method, ASPE estimates that the 2015–2016 increase

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[5] See the "Methods and Limitations" section at the end of this brief for more details on calculation of second-lowest cost silver plan premiums and premium tax credits.

[6] Centers for Medicare and Medicaid Services, "2016 Marketplace Affordability Snapshot," October 26, 2015, available at: https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-10-26-2.html.

[7] This brief closely follows the actual methodology used to determine the benchmark for advanced premium tax credits (APTC) and enrollees' APTC amount. For more details on how benchmark premiums are calculated, see the "Methodology and Limitations" section at the end of this brief.

[8] For the purposes of calculating the advance premium tax credit, a second-lowest cost silver level plan for a specific taxpayer is identified based on what is available to the taxpayer at the time of enrollment, in the taxpayer's

in the second-lowest cost silver *benchmark* plan is 7.2 percent (see Appendix Table 7). This rate increase is relatively modest compared to those in the individual market before the Affordable Care Act, when consumers in the individual market regularly experienced double-digit rate increases on average.[9]

Recent ASPE analysis also suggests that about one-third (31 percent) of consumers who reenrolled in coverage through the Marketplace in 2015 switched plans. Consumers who switched plans within the same metal level saved $33 per month on average, or nearly $400 annually, relative to what they would have paid had they remained in the same plan in 2014.[10] Similarly, this brief shows that consumers who bought a 2015 plan and decide to shop actively for a comparable 2016 plan will often be able to find a plan with lower premiums.

Section I of this brief describes the choices of issuers and plans that consumers in states using the HealthCare.gov platform will have in the 2016 coverage year, and compares these choices to the choices available in previous Open Enrollment Periods.

Section II provides an overview of premiums in HealthCare.gov states for 2016 and illustrates how consumers may benefit from returning to the Marketplace to shop for a plan that meets their needs and budget.

SECTION I: CONSUMER CHOICE AMONG HEALTH INSURANCE ISSUERS IN 2014, 2015 AND 2016

Issuers

There are nearly 240 issuers participating in the Marketplace in HealthCare.gov states in 2016 (see Appendix Table 8). The number of issuers offering health plans in the Marketplace has remained relatively stable from 2015 to 2016, as shown in Table 1a. Based on analysis at the county level, Marketplace consumers can choose from an average of 5 issuers for 2016 coverage, similar to 2015 and up from 2014.

During the 2015 open enrollment period, nearly 9 out of 10 (87 percent) of the people who selected a qualified health plan lived in counties with three or more issuers; for 2016 this proportion has remained stable (nearly 9 out of 10, or 88 percent). Figure 1 shows the proportion of Marketplace enrollees who had a choice of 3 or more issuers each year. [11]

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geographical area. In this brief for analytic purposes, at times we use the term "benchmark plan" to refer to the second-lowest cost silver plan in a county, which may not be the benchmark plan for all individual consumers.

[9] Jon Gabel, "Trends in Premiums in the Small Group and Individual Insurance Markets," NORC at the University of Chicago, November 6, 2012, available at: http://aspe.hhs.gov/report/trends-premiums-small-group-and-individual-insurance-markets-2008-2011.

[10] Thomas DeLeire and Caryn Marks, "Consumer Decision Regarding Health Plan Choices, in the 2014 and 2015 Marketplaces," *ASPE Issue Brief,* Assistant Secretary for Planning and Evaluation, October 27, 2015, available at: http://aspe.hhs.gov/sites/default/files/pdf/134556/Consumer_decisions_10282015.pdf.

[11] Note that some previous ASPE issue briefs on plan choice and availability presented analyses at the rating area level. Because plans available in some part of a rating area are not always available in all parts of a rating area, conducting the analysis at the county level better captures the set of options consumers will see when they shop and more closely matches consumers' shopping experience.

Competition has been shown to intensify when there are three or more firms in a market.[12] In the context of the Marketplaces, issuers are the relevant firms. Each issuer sells multiple plans across the various metal levels. Thus competition shapes issuers' decisions on the types of plans to offer and the premiums at which they will be sold. ASPE's earlier research on competition in the Marketplaces shows that, as in other markets, having three or more issuers in results in vigorous premium competition and results in significantly lower premiums for consumers.[13]

The number of issuers active in the average consumers' state has remained relatively stable. (Not all issuers operate in all counties within a state, however, and thus the number of issuers available to a particular consumer may be less than the number of issuers that operate anywhere in the state.)

Across the HealthCare.gov states, 40 new issuers will begin offering Marketplace plans for the 2016 coverage year, while 35 issuers that offered plans in 2015 will no longer offer plans through the Marketplace in 2016.[14] Table 8 in the Appendix provides the number of issuers by state for the years 2014 to 2016.[15]

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[12] For example, see Timothy Bresnahan and Peter Reiss, "Entry and Competition in Concentrated Markets," *The Journal of Political Economy*, vol. 99, no.5 (Oct. 1991), p. 997-1009.

[13] Steven Sheingold, Nguyen Nguyen, and Andre Chappel, "Competition and Choice in the Health Insurance Marketplaces, 2014-2015: Impact on Premiums," Issue Brief, Assistant Secretary for Planning and Evaluation, July 27, 2015, available at: http://aspe.hhs.gov/sites/default/files/pdf/108466/rpt_MarketplaceCompetition.pdf.

[14] The total number of issuers in is calculated based on identifying an issuer by its unique five-digit Health Insurance Oversight System (HIOS) ID. In some cases, issuers with different HIOS IDs belong to the same parent company. An issuing entity's HIOS issuer ID is specific to the state in which it operates, such that a company offering QHPs through the Marketplace in two states would be counted twice—once for each state. Issuer totals for 2015 and 2016 include 37 states and do not include Hawaii, which began using the HealthCare.gov platform for the 2016 coverage year. Issuer totals for 2014 include 35 states and do not include Hawaii, New Mexico, and Oregon.

[15] The 2016 plan landscape file used in this brief is a snapshot of issuer participation and plans as of October 19, 2015 and does not reflect changes in issuer and plan offerings after that date. For example, the landscape file used in this analysis includes some plans and issuers that, based on decisions after October 19th, will not be offered in 2016, and does not include a very small number of plans and/or issuers that will become available for enrollment in mid-November. Since the production of the October 19, 2015 version of the landscape file, Departments of Insurance have directed some issuers or plans to exit the Marketplaces in Arizona, Michigan, Oregon, South Carolina, and Utah, and those issuers or plans will not be available for 2016. The landscape file also does not include issuers in New Jersey, New Mexico, and Texas that will become available later during Open Enrollment. Due to these changes since the 2016 landscape file was finalized on October 19th, in a small number of states the consumer experience will differ from what is reported in this brief.

FIGURE 1
Percent of Consumers with Choice of Three or More Issuers in 2014, 2015 and 2016
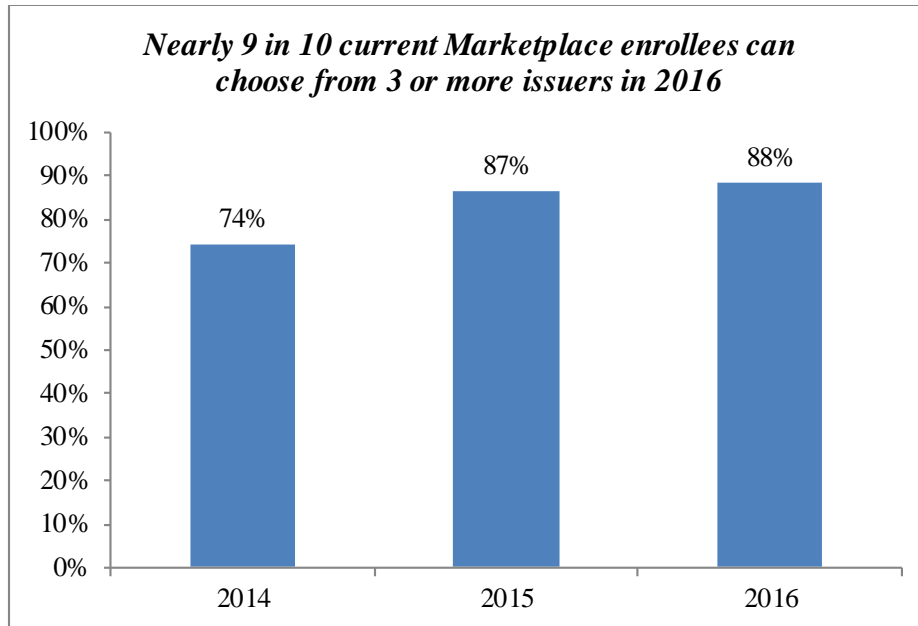
Nearly 9 in 10 current Marketplace enrollees can choose from 3 or more issuers in 2016

Year	Percent
2014	74%
2015	87%
2016	88%

Source: Information on plans and issuers is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for states using the HealthCare.gov platform.
Note: See "Methods and Limitations" section for more details regarding data and methods used. "Enrollees" refers to those people who selected a qualified health plan in the Marketplace. The 2014 estimate uses PY2014 plan selections in 35 states, and the 2015 and 2016 estimates are based on PY2015 plan selections in 37 states. The number of issuers available to those who selected a Marketplace plan is based on the number of issuers offering qualified health plans in each person's county of residence. The 2014 and 2015 numbers differ from the ASPE issue brief "Health Plan Choice and Premiums in the 2015 Health Insurance Marketplace" because that brief used an older version of the PY2015 landscape file.

Plans

In 2016, consumers can chose from 50 plans in their county on average, including catastrophic plans. This represents a decrease from an average of 58 plans per county last year. Appendix Table 9 shows an average decline of 2 plans per issuer between 2015 and 2016, suggesting that some issuers are refining plans as the Marketplace matures and issuers respond to consumer demand.[16] In many cases, reductions in the number of plans available will have little or no practical effect on the scope of options available to consumers, either because the eliminated plans were unpopular with consumers or because those plans were very similar to other plans that will continue to be offered.

The health plan category or "metal level" determines how consumers and plans can expect to share the costs of care. For example, with a silver level plan the health plan pays about 70 percent of the total costs of care for essential health benefits, on average, and the consumer pays 30 percent of these costs. This takes into account the plan's deductibles, copayments, coinsurance, and out-of-pocket maximums.

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[16] See footnote 15.

Table 1a shows details on the number of plans an average *consumer* can choose from. For the average number of issuers per state and plans *per county*, see Table 1b in the Appendix.

TABLE 1a
Summary of Marketplace Health Plans and Issuers for HealthCare.gov States, 2014 – 2016

	2014 Average Weighted by 2014 Plan Selections	**2015 Average** Weighted by 2015 Plan Selections	**2016 Average** Weighted by 2015 Plan Selections
Number of HealthCare.gov States Included in Calculations	*35*	*37*	*37*
Issuers in State	8	9	10
Issuers in County	4	5	5
Qualified Health Plans in County *(excluding catastrophic)*	51	55	47
Plans in County	54	58	50
Catastrophic Plans	3	3	3
Bronze Plans	15	16	15
Silver Plans	18	22	19
Gold Plans	14	13	11
Platinum Plans	4	4	2

Source: Information on plans and issuers is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for states using the HealthCare.gov platform in 2014, 2015 and 2016.
Note: All averages in this table are weighted based on plan selections in the county. The 2014 estimate uses PY2014 plan selections in 35 states, and the 2015 and 2016 estimates are based on PY2015 plan selections in 37 states. The number of issuers per state is calculated by finding the total number of issuers offering QHPs anywhere in each state, then taking an average over all states weighted by plan selections in the state. Numbers may not sum due to rounding. The 2014 and 2015 numbers differ from the previous ASPE issue brief "Health Plan Choice and Premiums in the 2015 Health Insurance Marketplace" as a result of calculating averages weighted by plan selections, rather than unweighted averages. See Appendix Table 1b for an unweighted version of this table.

SECTION II: MARKETPLACE HEALTH PLAN PREMIUMS IN 2015 AND 2016

The Marketplace enables consumers to comparison shop for a plan that meets their needs and budget. Most enrollees will receive financial assistance to help with the cost of their monthly premiums. In 2014, 64 percent of individuals who selected a plan in the Marketplace selected the lowest cost (43 percent) or second-lowest cost plan (21 percent) in their metal tier. Similarly, in 2015, 47 percent of individuals who selected a plan in the Marketplace selected the lowest cost (31 percent) or second-lowest cost plan (17 percent) in their metal tier—indicating that many Marketplace consumers shop based on premium.[17] Survey evidence suggests that the premium is the most important factor in consumers' decision-making when shopping for insurance.[18] Recent ASPE analysis suggests that Marketplace consumers are highly sensitive to net premium price

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[17] May not sum due to rounding. Percentages do not include tobacco users.
[18] Robert Wood Johnson Foundation, "Understanding the Uninsured Now," June 2015, available at:
http://www.rwjf.org/en/library/research/2015/06/understanding-the-uninsured-now.html.

(i.e., premium after advance premium tax credit) and nearly one-third of consumers who reenrolled in a Marketplace plan in 2015 switched to a new plan.[19]

The Marketplace continues to be competitive and dynamic, and issuers are continuing to compete to offer more affordable options to consumers. Plans that were the second-lowest cost silver plan or lowest-cost silver plan in 2015 may not be the second-lowest cost or lowest-cost plan in 2016, so it will be important for returning consumers to review other options in 2016 to ensure that they select the plan that best fits their circumstances. The benchmark plan is significant because advance premium tax credits that are available to help make Marketplace coverage more affordable are calculated based on the premium of the benchmark (second-lowest cost silver) plan in the consumer's geographic area. The actual payment made by consumers for their insurance depends on the plan they choose when enrolling in coverage through the Marketplace and the level of tax credit they qualified for.

Consumers who receive premium tax credits are protected by the Affordable Care Act's cap on the amount they pay for the benchmark, second-lowest cost silver plan in their area. For those eligible for advance premium tax credits, the law sets a maximum amount of family income that can be paid toward Marketplace coverage. This means that no matter how much the benchmark plan's total premium increases, tax credit eligible consumers' costs are capped. The examples on the next page, corresponding to Table 10a and 10b, show how premium increases affect tax credits; Marketplace tax credits adjust to match changes in the benchmark silver plan premium in each market.

More than 8 in 10 (86 percent) current Marketplace enrollees can find a lower premium plan in the same metal level by returning to the Marketplace to shop for 2016 coverage, as illustrated in Table 2. For example, the average lowest-cost premium for a silver plan available to current silver-level enrollees is $359 per month for 2016 before applicable tax credits. The average consumer who bought a silver plan last year and decides to shop for a better deal this year can save $52 a month—which results in total premium savings of $624 a year.[20] If all silver plan holders switch to the lowest-cost silver plan available to them for 2016, the total savings for the year would be $3.2 billion. Across all metal levels, the total premium savings would be $4.5 billion. (State-level analyses are in Appendix Table 14.)

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[19] Thomas DeLeire and Caryn Marks, "Consumer Decision Regarding Health Plan Choices, in the 2014 and 2015 Marketplaces," *ASPE Issue Brief,* Assistant Secretary for Planning and Evaluation, October 27, 2015, available at: http://aspe.hhs.gov/sites/default/files/pdf/134556/Consumer_decisions_10282015.pdf.

[20] Savings for individual enrollees may differ from this amount based on their choice of plan, eligibility for premium tax credits, and other characteristics.

Premium Tax Credits: Examples

Example 1: Single 27-year-old in Charlotte, NC with an income of $25,000

Calculate her tax credit for 2015 coverage:
- Income as percentage of FPL: 214%
- Maximum monthly payment for second-lowest silver benchmark plan: $142
- Monthly total premium of second-lowest silver benchmark plan: $268
- Advance premium tax credit per month: $268– $142= $126

Suppose she's trying to decide among two silver plans and a bronze. She can apply her tax credit to any of them.
- Before tax credit, the monthly premiums are
  - Bronze: $200
  - Lowest silver: $260
  - Second-lowest silver: $268
- After applying her tax credit, the monthly premiums are
  - Bronze: $200 − $126 = $74
  - Lowest silver after tax credit: $260 − $126 = $134
  - Second-lowest silver after tax credit: $268 − $126 = $142

Example 2: Premiums for a 27-year-old making $25,000 in Charlotte, NC for 2016

Calculate her tax credit for 2016 coverage:
- Income as percentage of FPL: 212%
- Maximum monthly payment for second-lowest silver benchmark plan: $143
- Monthly total premium of second-lowest silver benchmark plan: $335
- Advance premium tax credit per month: $335 − $143= $192

Even if premiums rose from 2015 to 2016, the tax credit protects consumers from higher prices.
- Before tax credit, the monthly premiums are
  - Bronze: $250
  - Lowest silver: $308
  - Second-lowest silver: $335
- After applying her tax credit, the monthly premiums are
  - Bronze: $250 − $192 = $58
  - Lowest silver after tax credit: $308 − $192 = $116
  - Second-lowest silver after tax credit: $335 − $192 = $143

TABLE 2
Potential Savings from Shopping Based on Premium if Current Marketplace Enrollees
Switch to 2016 Lowest-Cost Premium Plan within Metal Level for 37 States

Current Marketplace Enrollees	All Plan Types	Bronze	Silver	Gold	Platinum
Average Lowest-Cost 2016 Monthly Premium within Metal Level before Applicable Tax Credit	N/A	$294	$359	$406	$550
Average 2016 Monthly Premium Savings if Consumers Switch to Lowest-Cost Plan within Metal Level	$51	$40	$52	$68	$64
% of Enrollees Who Could Save on Premium Costs by Switching to the Lowest-Cost Plan in Metal Level	86%	86%	86%	87%	60%
ANNUAL Average Potential Savings in Premium Costs per Enrollee	$610	$483	$624	$814	$771
MONTHLY Aggregate Amount of Potential Savings in Premium Costs across All Enrollees	$377 M	$63 M	$271 M	$38 M	$6.1 M
ANNUAL Aggregate Amount of Potential Savings in Premiums Costs Across All Enrollees	$4.5 B	$759 M	$3.2 B	$451 M	$74 M

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 37 states using the HealthCare.gov platform in 2015 and 2016.

Note: Amounts presented here do not take into account potential premium tax credits. The lowest-cost premium refers to the plan with the lowest premium within the county within each metal tier and based on all plans available in 2016. The lowest cost plan does not take into account other cost-sharing features, but refers only to the cost of the premium charged for that plan. In some cases, plans were tied for lowest premium. This analysis includes only enrollees linked to complete plan and premium data for both 2015 and 2016, and excludes tobacco users, who may face additional surcharges. Catastrophic plans, which are not available to all consumers, were not considered in these calculations. We assume that *all* enrollee characteristics are unchanged and calculate premiums based on the same age, family composition, and household income as percentage of the FPL as in 2015. Metal-level analysis is based on the metal consumers would be automatically re-enrolled into for 2016, based on their metal choice in 2015. See the "Methods and Limitations" section at the end of this brief for more details.

Health Insurance Plan Affordability after Advance Premium Tax Credits in the Marketplace in 2016

With an average of 5 issuers offering an average of 50 Marketplace plans to choose from in 2016, both new and reenrolling consumers have many options when shopping for coverage.

The Affordable Care Act established premium tax credits to help consumers with the cost of coverage based on their household incomes. For the 2015 plan year, 86 percent of consumers who selected a Marketplace plan received financial assistance.[21] Eight in 10 had the option of selecting a plan with a monthly premium of $100 or less after applying the premium tax credit, and nearly 6 in 10 individuals selected such a plan.[22] We estimate that nearly 80 percent of the uninsured who are eligible for coverage through the Marketplaces have incomes between 100 percent and 400 percent of the Federal Poverty Level (FPL) and may be eligible to receive tax credits for plan year 2016.[23]

Competition and premium tax credits are related. Increased numbers of issuers in a market means more competition. More competition tends to put downward pressure on premiums. As competition intensifies, the benchmark plan (second-lowest cost silver plan) may change, particularly as new issuers enter the Marketplace to compete for customers. Previous ASPE analysis suggested that in 42 percent of counties with new issuers, issuers that were new to the Marketplace offered at least one silver plan premium below what would have been the second-lowest cost silver among existing issuers, thereby directly reducing the benchmark premium. Of the issuers that exited the Marketplace, just 17 percent offered a 2014 plan at or below the benchmark premium.[24] Competition in the Marketplace means that benchmark premiums (and thus premium tax credits) may grow more slowly than a consumer's current plan's premium. For this reason, consumers who want to make their tax credit's purchasing power go as far as possible should shop for coverage, regardless of what metal level they select. Premium competition also serves to benefit taxpayers by holding down tax credit costs.

Tables 3, 4, and 5 show possible 2016 premiums after applicable tax credits for current Marketplace enrollees. The analysis in Tables 3, 4, and 5 holds all enrollee characteristics unchanged and calculates 2016 premiums and tax credits based on the same age, family composition, and household income relative to poverty level as in 2015.

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[21] This represents the percentage of individuals who selected a Marketplace plan and qualified for an advance premium tax credit (APTC), with or without a cost-sharing reduction. See: U.S. Department of Health and Human Services, "Health Insurance Marketplaces 2015 Open Enrollment Period: March Enrollment Report," *ASPE Issue Brief*, ASPE, March 10, 2015.

[22] Ibid.

[23] Kenneth Finegold, Kelsey Avery, Bula Ghose, and Caryn Marks, "Health Insurance Marketplace: Uninsured Populations Eligible to Enroll for 2016," *ASPE Issue Brief*, Assistant Secretary for Planning and Evaluation, October 15, 2015, available at: http://aspe.hhs.gov/pdf-report/health-insurance-marketplace-uninsured-populations-eligible-enroll-2016.

[24] For more information see: Steven Sheingold, Nguyen Nguyen, and Andre Chappel, "Competition and Choice in the Health Insurance Marketplaces, 2014-2015: Impact on Premiums," *ASPE Issue Brief*, Assistant Secretary for Planning and Evaluation, July 27, 2015.

Table 3 shows the percentage of current Marketplace enrollees in the 37 states who could get coverage for as little as $100 or less per month, taking into account any applicable tax credits in 2016, *regardless of the metal level they selected in 2015*. For example, nearly 8 in 10 (78 percent) of all customers returning to the Marketplace can get coverage for a premium of $100 or less after advance premium tax credits in 2016, regardless of their 2015 plan metal level choice. More than 7 in 10 (72 percent) can get coverage a premium of $75 or less after advance premium tax credits. (Percentages of those who could obtain coverage for a premium of $100 or less, $75 or less, and $50 or less by state are shown in Table 13 in the Appendix at the end of this brief.)

TABLE 3
It Pays to Shop: Percent of Current Marketplace Enrollees Who Could Obtain Coverage for $100 or Less after Any Applicable Advance Premium Tax Credits in 2016, 37 States
Regardless of Metal Level in 2015

Monthly Premium After Advance Premium Tax Credits	Any Plan Types	Bronze	Silver	Gold	Platinum
$100 or less	78%	78%	63%	27%	2%
$75 or Less	72%	72%	54%	14%	1%
$50 or Less	65%	65%	41%	5%	0%

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 37 states using the HealthCare.gov platform in 2015 and 2016.
Note: Columns may not sum due to rounding. This analysis holds *all* enrollee characteristics unchanged and calculates 2016 premiums and tax credits based on the same age, family composition, and household income as percentage of the FPL as in 2015. This analysis includes only enrollees who could be linked to complete plan and premium data for both 2015 and 2016, and excludes tobacco users. Catastrophic plans, which are not available to all consumers, were not considered in these calculations. See the "Methods and Limitations" section at the end of this brief for more details.

Table 4 shows the percentage of current Marketplace enrollees who could get coverage for $100 or less, taking into account any applicable advance premium tax credits, *if they keep their current plan* and do not switch to a lower-premium plan for 2016. For example, 52 percent of Marketplace enrollees who selected a silver-level plan in 2015 will have 2016 coverage for a premium of $100 or less if they keep their current plan.

TABLE 4
It Pays to Shop: Percent of Current Marketplace Enrollees Who Would Be Covered for $100 or Less after Any Applicable Advance Premium Tax Credits in 2016, 37 States
If They Did Not Switch Plans

Monthly Premium After Advance Premium Tax Credits	All Plan Types	Bronze	Silver	Gold	Platinum
$100 or less	47%	48%	52%	4%	1%
$75 or Less	36%	39%	39%	1%	0%
$50 or Less	24%	28%	25%	0%	0%

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 37 states using the HealthCare.gov platform in 2015 and 2016.
Note: Columns may not sum due to rounding. This analysis holds *all* enrollee characteristics unchanged and calculates 2016 premiums and tax credits based on the same age, family composition, and household income as percentage of the FPL as in 2015. This analysis includes only enrollees linked to complete plan and premium data for both 2015 and 2016, and excludes tobacco

users. Catastrophic plans, which are not available to all consumers, were not considered in these calculations. See the "Methods and Limitations" section at the end of this brief for more details.

However, there may be more affordable plans in 2016 available to current enrollees. Table 5, below, shows the percentage of current Marketplace enrollees in the 37 states that could get coverage for $100 or less, taking into account any applicable tax credits, *while staying in their current metal level*. For example, 66 percent of all people who selected a plan in 2015 could get coverage for a premium of $100 or less if they selected a lower-premium plan in their same metal level in 2016. Of those who selected a silver plan in 2015, 75 percent could get silver plan coverage for a premium of $100 or less in 2016 if they choose a lower-cost plan.

TABLE 5
It Pays to Shop: Percent of Current Marketplace Enrollees Who Could Obtain Coverage for $100 or Less after Advance Premium Tax Credits in 2016, 37 States
within Their Current Metal Level

Monthly Premium After Advance Premium Tax Credits	All Plan Types	Bronze	Silver	Gold	Platinum
$100 or less	66%	61%	75%	11%	1%
$75 or Less	57%	52%	66%	5%	0%
$50 or Less	46%	42%	52%	1%	0%

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 37 states using the HealthCare.gov platform in 2015 and 2016.
Note: Columns may not sum due to rounding. This analysis holds *all* enrollee characteristics unchanged and calculates 2016 premiums and tax credits based on the same age, family composition, and household income as percentage of the FPL as in 2015. This analysis includes only enrollees linked to complete plan and premium data for both 2015 and 2016, and excludes tobacco users. Catastrophic plans, which are not available to all consumers, were not considered in these calculations. See the "Methods and Limitations" section at the end of this brief for more details.

Advance Premium Tax Credits

The Affordable Care Act specifies that an individual who is eligible for premium tax credits will be required to pay no more than a fixed percentage of their income for the second-lowest cost silver plan available in the Marketplace in their local area. This applicable percentage varies only by household income as a percentage of the Federal Poverty Level (FPL) and does not depend on household members' ages, the number of people within the household covered through the Marketplace, or Marketplace premiums. (For examples of 2016 incomes and benchmark premiums for those who are eligible for tax credits, see Table 6 on the next page.) The applicable percentage is converted into a maximum dollar amount the household is required to pay annually for the benchmark plan available to them, and the tax credit is applied to make up the difference between the maximum dollar amount and the actual premium, if any.[25] Note that the maximum

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[25] If the premium of the second-lowest cost silver plan falls below the maximum amount the household pays for benchmark coverage, then the household does not receive a tax credit and pays the full premium for the benchmark plan.

percent of income paid toward the second-lowest silver plan is adjusted annually by a measure of the difference between premium growth and income growth.

The exact dollar amount of the premium tax credit depends on the premium of the second-lowest cost silver benchmark plan available to the household and the cost of covering the family members who are seeking Marketplace coverage. For more information on benchmark plans, see the "Methodology and Limitations" section of this brief.

TABLE 6
Examples of Maximum Monthly Health Insurance Premiums for the Second-Lowest Cost Silver Plan for Marketplace Coverage for a Single Adult in 2016[26]

Single Adult Income[27]	Percent of the Federal Poverty Level	Maximum Percent of Income Paid toward Second-Lowest Cost Silver Plan	Maximum Monthly Premium Payment for Second-Lowest Cost Silver Plan
$11,770	100%[28]	2.03%	$20
$17,655	150%	4.07%	$60
$23,540	200%	6.41%	$126
$29,425	250%	8.18%	$201
$35,310	300%	9.66%	$284
$41,195	350%	9.66%	$332
$47,080	401%	No Limit	No Limit

Source: Applicable percentages for 2016 coverage are available at: http://www.irs.gov/pub/irs-drop/rp-14-62.pdf. The 2015 Federal Poverty Guidelines, used for premium tax credits for 2016 coverage, are at: http://aspe.hhs.gov/2015-poverty-guidelines.

Conclusion

As the Health Insurance Marketplace matures, new and returning customers to the Marketplace will continue to see a considerable choice of available issuers and health plans, as well as affordable premiums in 2016. Premium tax credits will also continue to play an important role in ensuring that consumers have access to affordable options. Many consumers who purchased plans in 2014 through the Marketplace realized substantial savings by switching plans for the 2015 plan year, and consumers can realize substantial savings again this year if they shop around to find the plan that best meets their needs and their budget. They can do so by going to HealthCare.gov, which provides information for consumers looking to compare plans on premiums and other plan features.

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[26] For more information on premium tax credits, see the Internal Revenue Service final rule on "Health Insurance Premium Tax Credit," (*Federal Register*, May 23, 2012, vol., 77, no. 100, p. 30392; available at: http://www.gpo.gov/fdsys/pkg/FR-2012-05-23/pdf/2012-12421.pdf).

[27] Income examples are based on the 2015 federal poverty guidelines for the continental United States. Alaska and Hawaii have higher federal poverty guidelines, which are not shown in this table.

[28] In states expanding Medicaid, individuals and families at between 100 and 138 percent of the FPL who are eligible for Medicaid coverage are not eligible for premium tax credits.

Methodology and Limitations

Data

The plan and premium data reported here are from the Marketplace QHP landscape individual market medical files, which are publicly available at HealthCare.gov.[29] Data were not available for all states. This analysis focuses on the states which were included in Marketplace landscape file, including: Alabama, Alaska, Arizona, Arkansas, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, Nevada, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming. However, some metrics are limited to 35 states that were included in the 2014 Marketplace landscape files, the 37 (35 plus Nevada and Oregon) included in the 2015 landscape file, or the 38 (35 plus Nevada, Oregon, and Hawaii) in the 2016 landscape file.

For most State-based Marketplaces (SBMs) operating their own enrollment platforms, comprehensive plan and premium data were not available. State-based Marketplaces not included in the analysis in this brief are California, Colorado, Connecticut, District of Columbia, Idaho, Kentucky, Maryland, Massachusetts, Minnesota, New York, Rhode Island, Vermont, and Washington. Some State-based Marketplaces submit plan data to the Center for Consumer Information and Insurance Oversight (CCIIO) for display using the HealthCare.gov eligibility and enrollment platform. Idaho relied on the HealthCare.gov platform only in 2014 and is not included in this brief. New Mexico utilized the HealthCare.gov platform to support its eligibility and enrollment functions in 2014, will continue to do so in 2015, and is included in the analysis in this brief. Oregon and Nevada did not rely on the HealthCare.gov platform in 2014 but do for 2015 and 2016, and Hawaii will use the HealthCare.gov platform for 2016.

Plan information is based on the plan landscape files for the states using the HealthCare.gov platform as of January 2014 for the 2014 coverage year, as of August 2015 for the 2015 coverage year, and as of October 19, 2015 for the 2016 coverage year. The ASPE Issue Brief published last year, titled "Health Plan Choice and Premiums in the 2015 Health Insurance Marketplace," used an older version of the landscape file for the 2015 coverage year.[30] Numbers relating to the 2015 coverage year have been updated for this brief using the August 2015 landscape file, and therefore the 2015 coverage year numbers in this brief differ from the previously published numbers using the November 2014 version of the file.

The 2016 plan landscape file used in this brief is a snapshot of issuer participation and plans as of October 19, 2015 and does not reflect changes in issuer and plan offerings after that date. For example, the landscape file used in this analysis includes some plans and issuers that, based on decisions after October 19th, will not be offered in 2016, and does not include a very small number of plans and/or issuers that will become available for enrollment in mid-November.

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[29] The Marketplace plan landscape files can be downloaded at: https://www.healthcare.gov/health-and-dental-plan-datasets-for-researchers-and-issuers/

[30] Available at http://aspe.hhs.gov/pdf-report/health-plan-choice-and-premiums-2015-health-insurance-marketplace.

Since the production of the October 19, 2015 version of the landscape file, Departments of Insurance have directed some issuers or plans to exit the Marketplaces in Arizona, Michigan, Oregon, South Carolina, and Utah, and those issuers or plans will not be available for 2016. The landscape file also does not include issuers in New Jersey, New Mexico, and Texas that will become available later during Open Enrollment. Due to these changes since the 2016 landscape file was finalized on October 19th, in a small number of states the consumer experience will differ from what is reported in this brief.

Enrollment information is based on active QHP selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) as of December 2014 (for the 2014 coverage year), and as of February 22, 2015 (for the 2015 and 2016 coverage years). In this brief, we use the term "enrollees" to refer to individuals with active Marketplace individual market health plan selections; it does not refer to "effectuated enrollees"—individuals who selected plans and paid the premium.

Additionally, we exclude tobacco users and enrollees in Virginia plans covering treatment of morbid obesity from our calculations of premiums because their premium rates may be higher than standard, non-tobacco rates. Our calculations of the savings from switching plans (Table 2) and premium tax credits (Table 3, 4, and 5) are based on only on enrollees whom we were able to link to complete premium and plan data for both 2015 and 2016. Excluding tobacco users, non-tobacco users who were missing required data, non-tobacco users who could not be linked to 2016 plans, and non-tobacco users who selected catastrophic plans reduced the number of plan selections in the 37 HealthCare.gov states as of February 22, 2015 from 8.8 million to 7.4 million used for this analysis.

Issuers and Plans

We calculate the total number of issuers by unique five-digit Health Insurance Oversight System (HIOS) issuer IDs. In some cases, issuers with different HIOS IDs belong to the same parent company. An issuing entity's HIOS issuer ID is specific to the state in which it operates, such that a company offering QHPs through the Marketplace in two states would be counted twice— once for each state.

Some previous ASPE issue briefs on plan choice and availability presented analyses at the rating area level. Because plans available in some part of a rating area are not always available in all parts of a rating area, in this brief we have conducted the analysis at the county level. Conducting the analysis at the county level better captures the set of options consumers will see when they shop and thus more closely matches consumers' shopping experience.

The analysis in this brief does not include stand-alone dental plans, child-only plans, or small-group Marketplace (SHOP) plans. In our estimates of Marketplace premiums, we also did not consider enrollees in catastrophic plans and plans in Virginia covering treatment of morbid obesity. Catastrophic coverage is not available to all consumers.

Weighted averages have been calculated at the county level for all counties in the HealthCare.gov states unless otherwise specified. Averages for 2014 are weighted by PY2014

plan selections per county in 35 states, 2015 averages are based on PY2015 plan selections in 37 states, and 2016 averages are based on PY2015 plan selections in 37 states.

Premiums

In this issue brief, we examine the plans and premiums available at the county level. Because some plans may not serve all counties within a rating area, county-level analysis provides a better approximation of plan availability. Analyses in some previous ASPE briefs on Marketplace premiums was typically at the rating area level; therefore, numbers in this brief should not be compared against those in previous briefs using rating-area analysis.

Our analysis of premiums in Tables 2-5 considers only current enrollees whose 2015 Marketplace plan is available in 2016, based on each plan's unique ID code. Consumers can be auto-enrolled into other coverage if their plan is not available for the next year.

Identifying Benchmark Plans

Plans in the Health Insurance Marketplace are required to offer a comprehensive package of items and services, known as essential health benefits (EHB). Marketplace plans can also offer benefits beyond these minimum benefits.

Each Marketplace plan reports what percentage of its premium is related to EHB. Most plans have an EHB percentage of 100 percent. However, plans that cover benefits beyond EHB have EHB percentages smaller than 100 percent, reflecting the fact that a portion of the premium pays for these additional benefits. The amount of premium that covers EHB is used to rank silver plans available to a consumer and determine which plan is the second-lowest cost silver plan— also called the benchmark plan—for the purposes of calculating advance premium tax credits.

In this issue brief, the EHB amount enters into our analysis in two ways. We ranked silver plans by the EHB amount of premium in order to determine what we define for analytic purposes as each county's "benchmark" plan.[31] We then compared the full premium amount of each year's respective benchmark to calculate the increase in second-lowest silver. Secondly, EHB amounts affect the calculation of premiums after applicable advance premium tax credits. Premium tax credits can be applied only to the portion of the plan's premium that covers EHB. For example, suppose a consumer has a $200 premium tax credit. If he selects a plan that costs $200 before tax credit and has an EHB percent of 95%, the tax credit will cover $190 of the plan premium and he will be responsible for covering the remaining $10.

The 2016 QHP landscape file includes a new variable called "EHB percent of total premium," which represents the proportion the plan's premium cost that covers EHB. For plan years 2014

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[31] For the purposes of calculating the advance premium tax credit, a second-lowest cost silver level plan for a specific taxpayer is identified based on what is available to the taxpayer at the time of enrollment, in the taxpayer's geographical area. In this brief for analytic purposes, at times we use the term "benchmark plan" to refer to the second-lowest cost silver plan in a county, which may not be the benchmark plan for all individual consumers.

and 2015, the EHB percentage of premium variable is not available on the landscape file but is available on the Health Insurance Marketplace public use files.[32]

The 2016 Marketplace rate snapshot recently published by CMS did not take into account EHB percentages when determining second-lowest cost silver plans and found that the 2015–2016 increase in second-lowest cost silver plan premiums was 7.5 percent.[33] This issue brief does take into account EHB, and therefore, the plans we identify as benchmark and the rate increase we calculate (7.2 percent for second-lowest cost silver benchmark plans) differ from the findings in the CMS snapshot. Additionally, calculations for the 2015 plan year have been updated for this brief using this methodology and thus differ from numbers in last year's premium landscape Issue Brief. [34]

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[32] The Health Insurance Marketplace public use files are available at: https://www.cms.gov/cciio/resources/data-resources/marketplace-puf.html.

[33] Centers for Medicare and Medicaid Services, "2016 Marketplace Affordability Snapshot," October 26, 2015, available at: https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-10-26-2.html.

[34] Available at http://aspe.hhs.gov/pdf-report/health-plan-choice-and-premiums-2015-health-insurance-marketplace

APPENDIX: TABLES BY STATE AND COUNTY

TABLE 1b
Summary of Marketplace Health Plans and Issuers for HealthCare.gov States, 2014–2016,
(Unweighted Averages)

	2014 Average	**2015 Average**	**2016 Average**
Number of HealthCare.gov States Included in Calculations	35	37	37
Issuers per State	5	6	6
Issuers per County	3	3	3
Qualified Health Plans per County *(excluding catastrophic)*	28	34	33
Plans per County	30	36	35
Catastrophic Plans	2	2	2
Bronze Plans	9	11	11
Silver Plans	10	13	14
Gold Plans	8	9	8
Platinum Plans	1	1	1

Source: Information on plans and issuers is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for states using the HealthCare.gov platform.

Note: All averages in this table are unweighted; all counties are weighted equally. The number of issuers per state is the total number of issuers offering QHPs anywhere in a state; the average weights all states equally. Numbers may not sum due to rounding. The 2014 and 2015 numbers differ from the ASPE issue brief "Health Plan Choice and Premiums in the 2015 Health Insurance Marketplace" because that brief used an older version of the PY2015 landscape file.

TABLE 7
Average Monthly Premiums for Second-Lowest Cost Silver Plans for a 27-Year-Old
(Before Tax Credits), 2014–2016 in HealthCare.gov States

State	Average Second-Lowest Cost Silver Premium for a 27-Year-Old			
	2014	2015	2016	% Change, 2015–2016
HealthCare.gov States Average	**$218**	**$224**	**$240**	**7.2%**
AK	$349	$449	$590	32%
AL	$210	$216	$244	13%
AR	$241	$235	$244	4%
AZ	$164	$161	$189	18%
DE	$237	$247	$292	18%
FL	$218	$235	$237	1%
GA	$236	$228	$236	4%
HI	N/A	N/A	$213	N/A
IA	$207	$217	$245	13%
IL	$186	$192	$203	6%
IN	$270	$268	$235	-12%
KS	$196	$187	$217	16%
LA	$252	$267	$290	9%
ME	$266	$263	$260	-1%
MI	$207	$209	$212	1%
MO	$235	$233	$257	10%
MS	$313	$255	$230	-10%
MT	$208	$196	$264	35%
NC	$244	$259	$318	23%
ND	$233	$248	$270	9%
NE	$205	$243	$272	12%
NH	$237	$205	$215	5%
NJ	$265	$259	$272	5%
NM	$183	$163	$205	26%
NV	N/A	$217	$235	8%
OH	$216	$218	$221	1%
OK	$175	$185	$251	36%
OR	N/A	$183	$226	23%
PA	$198	$193	$214	11%
SC	$222	$223	$247	11%
SD	$234	$216	$270	25%
TN	$161	$191	$236	23%
TX	$204	$211	$220	4%
UT	$206	$212	$245	16%
VA	$223	$230	$240	4%
WI	$246	$251	$262	5%
WV	$230	$248	$294	18%
WY	$344	$359	$379	6%

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for states using the HealthCare.gov platform.

Note: The numbers in this table represent premiums before the application of advance premium tax credits. State and HealthCare.gov average premiums are weighted by the number of Marketplace plan selections in each county, except for Hawaii, in which all counties were weighted equally. Numbers presented here may differ from those in CMS's "2016 Marketplace Affordability Snapshot." The CMS snapshot analyzes percent changes in the second-lowest cost silver plan from 2015 to 2016, ranked by full premium price. This brief identifies the second-lowest cost silver plan in each county based on the portion of the premium that covers essential health benefits (EHB). See the "Methodology and Limitations" section for details.

TABLE 8
Number of Marketplace Issuers by State, 2014–2016 in HealthCare.gov States

State	Number of Issuers in State			Net Change in Number of Issuers in State, 2015–2016	Number of New Issuers to the State in 2016	Number of Issuers Exiting the State in 2016
	2014	**2015**	**2016**			
HealthCare.gov States Total*	**187**	**231**	**238**	**5**	**40**	**35**
AK	2	2	2	0	0	0
AL	2	3	3	0	0	0
AR	3	4	5	1	1	0
AZ	10	12	9	-3	2	5
DE	3	3	3	0	0	0
FL	11	12	10	-2	1	3
GA	5	8	9	1	3	2
HI	N/A	N/A	2	N/A	N/A	N/A
IA	4	3	4	1	2	1
IL	8	9	10	1	3	2
IN	4	8	8	0	1	1
KS	4	5	4	-1	1	2
LA	5	5	5	0	0	0
ME	2	3	3	0	0	0
MI	12	15	15	0	1	1
MO	4	7	7	0	0	0
MS	2	3	3	0	1	1
MT	3	3	3	0	0	0
NC	2	3	3	0	1	1
ND	3	3	3	0	0	0
NE	4	2	4	2	2	0
NH	1	4	5	1	1	0
NJ	4	6	5	-1	0	1
NM	4	5	4	-1	0	1
NV	N/A	4	4	0	1	1
OH	12	15	17	2	2	0
OK	6	3	2	-1	1	2
OR	N/A	10	11	1	1	0
PA	14	14	12	-2	1	3
SC	4	4	5	1	2	1
SD	3	3	2	-1	0	1
TN	4	3	4	1	1	0
TX	12	14	17	3	6	3
UT	6	6	5	-1	1	2
VA	8	9	11	2	2	0
WI	13	15	16	1	1	0
WV	1	1	2	1	1	0
WY	2	2	1	-1	0	1

Source: Plan and premium information is from the plan landscape files for states using the HealthCare.gov platform.
Note: An issuer is counted as "new" in 2016 if it did not offer an individual market health plan in a given state's Marketplace in 2015 based on its HIOS issuer ID number, and "exiting" if it was active in a given state's Marketplace in 2015 but not in 2016.
* Hawaii is not included in the net change in the number of issuers from 2015 to 2016, the sum of new issuers in 2016, and the sum issuers exiting in 2016.

TABLE 9
Average Number of Marketplace Qualified Health Plans per County, 2014–2016 in HealthCare.gov States

State	Average Number of QHPs			Change in Average Number of QHPs, 2015-2016	Average Number of QHPs per Issuer		Change in Average Number of QHPs per Issuer, 2015-2016
	2014	2015	2016		2015	2016	
HealthCare.gov States Average	**51**	**55**	**48**	**-8**	**12**	**10**	**-2**
AK	34	28	15	-13	14	8	-7
AL	7	18	13	-5	8	6	-2
AR	29	34	40	6	9	8	-1
AZ	105	105	65	-40	10	9	-1
DE	19	24	28	4	8	9	1
FL	112	65	52	-13	11	10	-1
GA	32	58	48	-9	11	8	-3
HI	N/A	N/A	20	N/A	N/A	10	N/A
IA	29	12	26	14	11	9	-2
IL	54	87	55	-31	15	9	-6
IN	25	49	61	12	11	11	0
KS	28	28	26	-2	10	10	0
LA	39	41	34	-7	11	8	-4
ME	17	25	30	5	8	10	2
MI	41	88	88	1	11	10	0
MO	19	29	37	8	9	10	1
MS	16	31	23	-8	13	9	-4
MT	26	34	30	-4	11	10	-1
NC	22	35	24	-11	14	10	-4
ND	24	28	21	-7	10	7	-3
NE	31	20	31	11	10	8	-2
NH	10	32	39	7	8	8	0
NJ	26	46	38	-8	8	8	0
NM	38	50	20	-30	10	5	-5
NV	N/A	42	49	7	13	13	-1
OH	40	70	81	11	9	9	0
OK	47	38	22	-16	16	11	-5
OR	N/A	75	73	-2	10	9	-1
PA	35	43	31	-12	8	7	-1
SC	26	54	70	16	15	19	4
SD	32	36	19	-17	12	10	-2
TN	59	57	57	0	28	19	-9
TX	40	60	50	-9	11	9	-2
UT	76	89	70	-19	17	18	1
VA	29	28	35	6	8	9	0
WI	66	84	60	-24	16	11	-5
WV	12	14	18	4	14	14	0
WY	16	40	28	-12	20	28	8

Source: Plan information is from the plan landscape files for states using the HealthCare.gov platform.
Note: Numbers may not sum due to rounding. Counts do not include catastrophic plans. Average number of plans in 2014, 2015 and 2016 represent the number of Marketplace QHPs per county, weighted by plan selections in the county. The 2014 estimate uses PY2014 plan selections in 35 states, and the 2015 and 2016 estimates are based on PY2015 plan selections in 37 states.

TABLE 10a
2016 Average Monthly Marketplace Premiums, Issuers, and QHPs Available in HealthCare.gov States

State	Total Number of Issuers in State	Average Number of QHPs per County	2016					
			27-Year-Old with a Household Income of $25,000			Family of Four with a Household Income of $60,000		
			Average			Average		
			Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount	Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount
HealthCare.gov States Average (38 States)	**10**	**48**	**$240**	**$143**	**$97**	**$869**	**$405**	**$464**
AK*	2	15	$590	$104	$486	$2,136	$316	$1,820
AL	3	13	$244	$143	$101	$882	$405	$477
AR	5	40	$244	$143	$101	$883	$405	$478
AZ	9	65	$189	$143	$46	$683	$405	$278
DE	3	28	$292	$143	$149	$1,056	$405	$651
FL	10	52	$237	$143	$94	$858	$405	$453
GA	9	48	$236	$143	$93	$856	$405	$451
HI***	2	20	$213	$118	$95	$773	$348	$425
IA**	4	26	$245	$143	$102	$886	$405	$481
IL	10	55	$203	$143	$60	$734	$405	$329
IN	8	61	$235	$143	$92	$852	$405	$447
KS	4	26	$217	$143	$74	$787	$405	$382
LA	5	34	$290	$143	$147	$1,050	$405	$645
ME	3	30	$260	$143	$117	$943	$405	$538
MI	15	88	$212	$143	$69	$767	$405	$362
MO**	7	37	$257	$143	$114	$931	$405	$526
MS	3	23	$230	$143	$87	$832	$405	$427
MT**	3	30	$264	$143	$121	$956	$405	$551
NC	3	24	$318	$143	$175	$1,151	$405	$746
ND	3	21	$270	$143	$127	$979	$405	$574
NE	4	31	$272	$143	$129	$984	$405	$579
NH	5	39	$215	$143	$72	$779	$405	$374
NJ**	5	38	$272	$143	$129	$985	$405	$580
NM	4	20	$205	$143	$62	$743	$405	$338
NV	4	49	$235	$143	$92	$849	$405	$444

State	Total Number of Issuers in State	Average Number of QHPs per County	2016					
			27-Year-Old with a Household Income of $25,000			Family of Four with a Household Income of $60,000		
			Average			Average		
			Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount	Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount
OH	17	81	$221	$143	$78	$801	$405	$396
OK	2	22	$251	$143	$108	$909	$405	$504
OR	11	73	$226	$143	$83	$817	$405	$412
PA	12	31	$214	$143	$71	$774	$405	$369
SC	5	70	$247	$143	$104	$893	$405	$488
SD	2	19	$270	$143	$127	$976	$405	$571
TN	4	57	$236	$143	$93	$853	$405	$448
TX	17	50	$220	$143	$77	$797	$405	$392
UT	5	70	$245	$143	$102	$791	$405	$386
VA	11	35	$240	$143	$97	$868	$405	$463
WI**	16	60	$262	$143	$119	$950	$405	$545
WV**	2	18	$294	$143	$151	$1,064	$405	$659
WY	1	28	$379	$143	$236	$1,374	$405	$969

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 38 states using the HealthCare.gov platform in 2016.

Note: Averages for premiums and number of QHPs per county are weighted by the county's number of Marketplace 2015 plan selections. In this example, the family of four is one 40-year-old adult, one 38-year-old adult, and two children under the age of 21. For households eligible for premium tax credits, after-tax-credit benchmark premiums are capped at a given percentage of household income. After-tax benchmark premiums will differ slightly between 2015 and 2016 for identical family compositions and income amounts because of changes in the applicable percentages and the Federal Poverty Guidelines. The 2015 guidelines are used to calculate benchmark premiums for coverage in 2016. Because poverty guideline thresholds generally increase each year, a given dollar amount of income may equate to a smaller percentage of the Federal Poverty Level (FPL) this year than it did in the previous year. For example, a four-person family with an income of $60,000 is at 247 percent of the FPL by 2015 guidelines and at 252 percent of the FPL by 2014 guidelines. As a result, the percentage of income the family would pay for the benchmark plan is smaller for 2016 than for 2015.

* Alaska and Hawaii's federal poverty guidelines are higher than those for the continental United States; consequently, the after tax credit premium is lower for a given amount of income.

** In all 38 states, our calculations of premiums after tax credits assume that all members of the family of four making $60,000 would be eligible for premium tax credits. However, in states with higher Medicaid/CHIP thresholds the children would be eligible for Medicaid/CHIP and not eligible for premium tax credits.

*** For purposes of this analysis, counties in Hawaii were weighted equally because corresponding plan selection information by county was not available.

TABLE 10b
2015 Average Monthly Marketplace Premiums, Issuers, and QHPs Available in HealthCare.gov States

State	Total Number of Issuers in State	Average Number of QHPs per County	2015					
			27-Year-Old with a Household Income of $25,000			Family of Four with a Household Income of $60,000		
			Average			Average		
			Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount	Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount
HealthCare.gov States Average (37 States)	**9**	**55**	**$224**	**$143**	**$81**	**$810**	**$407**	**$404**
AK*	2	28	$449	$105	$344	$1,624	$319	$1,305
AL	3	18	$216	$143	$73	$783	$407	$376
AR	4	34	$235	$143	$92	$851	$407	$444
AZ	12	105	$161	$143	$18	$581	$407	$174
DE	3	24	$247	$143	$104	$893	$407	$486
FL	12	65	$235	$143	$92	$850	$407	$443
GA	8	58	$228	$143	$85	$824	$407	$417
IA**	3	12	$217	$143	$74	$785	$407	$378
IL	9	87	$192	$143	$49	$696	$407	$289
IN	8	49	$268	$143	$125	$969	$407	$562
KS	5	28	$187	$143	$44	$677	$407	$270
LA	5	41	$267	$143	$124	$966	$407	$559
ME	3	25	$263	$143	$120	$954	$407	$547
MI	15	88	$209	$143	$66	$758	$407	$351
MO**	7	29	$233	$143	$90	$843	$407	$436
MS	3	31	$255	$143	$112	$923	$407	$516
MT**	3	34	$196	$143	$53	$710	$407	$303
NC	3	35	$259	$143	$116	$937	$407	$530
ND	3	28	$248	$143	$105	$900	$407	$493
NE	2	20	$243	$143	$100	$880	$407	$473
NH	4	32	$205	$143	$62	$741	$407	$334
NJ**	6	46	$259	$143	$116	$938	$407	$531
NM	5	50	$163	$143	$20	$591	$407	$184
NV	4	42	$217	$143	$74	$786	$407	$379

State	Total Number of Issuers in State	Average Number of QHPs per County	2015					
			27-Year-Old with a Household Income of $25,000			Family of Four with a Household Income of $60,000		
			Average			Average		
			Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount	Second-Lowest Silver Before Advance Premium Tax Credit	Second-Lowest Silver After Advance Premium Tax Credit	Advance Premium Tax Credit Amount
OH	15	70	$218	$143	$75	$789	$407	$382
OK	3	38	$185	$143	$42	$670	$407	$263
OR	10	75	$183	$143	$40	$664	$407	$257
PA	14	43	$193	$143	$50	$699	$407	$292
SC	4	54	$223	$143	$80	$806	$407	$399
SD	3	36	$216	$143	$73	$783	$407	$376
TN	3	57	$191	$143	$48	$692	$407	$285
TX	14	60	$211	$143	$68	$764	$407	$357
UT	6	89	$212	$143	$69	$684	$407	$277
VA	9	28	$230	$143	$87	$834	$407	$427
WI**	15	84	$251	$143	$108	$909	$407	$502
WV**	1	14	$248	$143	$105	$898	$407	$491
WY	2	40	$359	$143	$216	$ 1,300	$407	$893

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 37 states using the HealthCare.gov platform in 2015.

Note: Averages for premiums and number of QHPs per county are weighted by the county's number of Marketplace 2015 plan selections. In this example, the family of four is one 40-year-old adult, one 38-year-old adult, and two children under the age of 21. For households eligible for premium tax credits, after-tax-credit benchmark premiums are capped at a given percentage of household income. After-tax benchmark premiums will differ slightly between 2015 and 2016 for identical family compositions and income amounts because of changes in the applicable percentages and the Federal Poverty Guidelines. The 2014 guidelines are used to calculate benchmark premiums for coverage in 2015. Because poverty guideline thresholds generally increase each year, a given dollar amount of income may equate to a smaller percentage of the Federal Poverty Level (FPL) this year than it did in the previous year. For example, a four-person family with an income of $60,000 is at 247 percent of the FPL by 2015 guidelines and at 252 percent of the FPL by 2014 guidelines. As a result, the percentage of income the family would pay for the benchmark plan is smaller for 2016 than for 2015. Hawaii is not included in this analysis.
* Alaska's federal poverty guidelines are higher than those for the continental United States; consequently, the after tax credit premium is lower for a given amount of income.
** In all 37 states, our calculations of premiums after tax credits assume that all members of the family of four making $60,000 would be eligible for premium tax credits. However, in states with higher Medicaid/CHIP thresholds the children would be eligible for Medicaid/CHIP and not eligible for premium tax credits.

TABLE 11
Second-Lowest Cost Silver Plan Monthly Premiums for a 27-Year-Old (Before Tax Credits), 2015–2016 in Selected Counties in HealthCare.gov States

State	County	City in County	Second-Lowest Cost Silver Monthly Premium for a 27-year-old		
			2015	2016	% Change
AL	Jefferson	Birmingham	$217	$236	9%
AK	Anchorage	Anchorage	$449	$590	32%
AK	Juneau	Juneau	$449	$590	32%
AZ	Maricopa	Phoenix	$145	$170	17%
AZ	Pima	Tucson	$147	$171	16%
AR	Pulaski	Little Rock	$245	$254	4%
DE	New Castle	Wilmington	$247	$292	18%
FL	Broward	Ft. Lauderdale	$198	$239	21%
FL	Duval	Jacksonville	$223	$220	-1%
FL	Hillsborough	Tampa	$240	$206	-14%
FL	Miami-Dade	Miami	$236	$216	-8%
FL	Orange	Orlando	$244	$256	5%
FL	Palm Beach	West Palm Beach	$237	$235	-1%
GA	Fulton	Atlanta	$224	$210	-6%
HI	Honolulu	Honolulu	N/A	$213	N/A
IL	Cook	Chicago	$177	$160	-10%
IN	Marion	Indianapolis	$277	$266	-4%
IA	Linn	Cedar Rapids	$202	$233	15%
KS	Sedgwick	Wichita	$179	$203	14%
KS	Wyandotte	Kansas City	$188	$240	28%
LA	Orleans	New Orleans	$243	$272	12%
ME	Cumberland	Portland	$231	$234	1%
MI	Wayne	Detroit	$188	$185	-2%
MS	Jackson	Jackson	$253	$228	-10%
MO	Saint Louis	St. Louis	$226	$235	4%
MT	Gallatin	Bozeman	$195	$267	37%
NE	Douglas	Omaha	$216	$256	19%
NV	Clark	Las Vegas	$195	$214	10%
NH	Hillsborough	Manchester	$202	$214	6%
NJ	Essex	Newark	$259	$271	5%
NM	Bernalillo	Albuquerque	$141	$198	41%
NC	Guilford	Greensboro	$247	$292	18%
NC	Mecklenburg	Charlotte	$268	$335	25%
NC	Wake	Raleigh-Durham	$238	$294	23%
ND	Cass	Fargo	$223	$249	11%
OH	Cuyahoga	Cleveland	$202	$189	-7%

State	County	City in County	Second-Lowest Cost Silver Monthly Premium for a 27-year-old		
			2015	2016	% Change
OH	Franklin	Columbus	$200	$240	20%
OH	Hamilton	Cincinnati	$208	$197	-6%
OH	Montgomery	Dayton	$226	$217	-4%
OK	Oklahoma	Oklahoma City	$179	$242	35%
OK	Tulsa	Tulsa	$183	$247	35%
OR	Multnomah	Portland	$175	$215	23%
PA	Allegheny	Pittsburgh	$141	$156	11%
PA	Philadelphia	Philadelphia	$219	$226	3%
SC	Richland	Columbia	$226	$258	14%
SD	Lincoln	Sioux Falls	$210	$253	20%
SD	Minnehaha	Sioux Falls	$210	$253	20%
TN	Davidson	Nashville	$188	$230	23%
TN	Shelby	Memphis	$183	$229	25%
TX	Bexar	San Antonio	$207	$186	-10%
TX	Comal	San Antonio	$195	$194	-1%
TX	Medina	San Antonio	$217	$201	-8%
TX	Dallas	Dallas	$229	$216	-6%
TX	El Paso	El Paso	$190	$197	4%
TX	Harris	Houston	$205	$210	2%
TX	Hidalgo	McAllen	$165	$159	-4%
TX	Travis	Austin	$197	$217	10%
UT	Salt Lake	Salt Lake City	$202	$229	13%
VA	Henrico	Richmond	$213	$227	6%
WV	Cabell	Huntington	$237	$260	10%
WV	Wayne	Huntington	$237	$260	10%
WI	Milwaukee	Milwaukee	$273	$267	-2%
WY	Laramie	Cheyenne	$334	$350	5%

Source: Plan and premium information is from the plan landscape files for states using the HealthCare.gov platform in 2016.
Note: The premiums in this table represent premiums before the application of tax credits. The number of QHPs in the county does not include catastrophic plans Numbers presented here may differ from those in CMS's "2016 Marketplace Affordability Snapshot." The CMS snapshot analyzes percent changes in the second-lowest cost silver plan from 2015 to 2016, ranked by full premium price. This brief identifies the second-lowest cost silver plan based on the portion of the premium that covers essential health benefits (EHB). See the "Methodology and Limitations" section for details. Additionally, CMS's analysis for cities was at the Designated Marketing Area (DMA, or media market) level. This table presents premiums for a single county.

TABLE 12
Number of Marketplace Issuers in County, 2015–2016 for Selected Cities in HealthCare.gov States

State	City	County	Number of Issuers		Net Change in Number of Issuers, 2015-2016
			2015	2016	
AL	Birmingham	Jefferson	3	3	0
AK	Anchorage	Anchorage	2	2	0
AK	Juneau	Juneau	2	2	0
AZ	Phoenix	Maricopa	12	9	-3
AZ	Tucson	Pima	11	6	-5
AR	Little Rock	Pulaski	4	5	1
DE	Wilmington	New Castle	3	3	0
FL	Ft. Lauderdale	Broward	8	7	-1
FL	Jacksonville	Duval	4	5	1
FL	Tampa	Hillsborough	5	5	0
FL	Miami	Miami-Dade	7	7	0
FL	Orlando	Orange	5	4	-1
FL	West Palm Beach	Palm Beach	8	7	-1
GA	Atlanta	Fulton	7	8	1
HI	Honolulu	Honolulu	N/A	2	N/A
IL	Chicago	Cook	7	8	1
IN	Indianapolis	Marion	5	6	1
IA	Cedar Rapids	Linn	1	3	2
KS	Wichita	Sedgwick	4	3	-1
KS	Kansas City	Wyandotte	2	2	0
LA	New Orleans	Orleans	4	5	1
ME	Portland	Cumberland	3	3	0
MI	Detroit	Wayne	13	13	0
MS	Jackson	Jackson	1	2	1
MO	St. Louis	Saint Louis	4	4	0
MT	Bozeman	Gallatin	3	3	0
NE	Omaha	Douglas	2	4	2
NV	Las Vegas	Clark	3	4	1
NH	Manchester	Hillsborough	4	5	1
NJ	Newark	Essex	6	5	-1
NM	Albuquerque	Bernalillo	5	4	-1
NC	Greensboro	Guilford	3	3	0
NC	Charlotte	Mecklenburg	3	3	0
NC	Raleigh-Durham	Wake	3	3	0
ND	Fargo	Cass	3	3	0
OH	Cleveland	Cuyahoga	10	12	2
OH	Columbus	Franklin	7	9	2

State	City	County	Number of Issuers		Net Change in Number of Issuers, 2015-2016
			2015	2016	
OH	Cincinnati	Hamilton	10	11	1
OH	Dayton	Montgomery	9	11	2
OK	Oklahoma City	Oklahoma	3	2	-1
OK	Tulsa	Tulsa	3	2	-1
OR	Portland	Multnomah	8	9	1
PA	Pittsburgh	Allegheny	5	5	0
PA	Philadelphia	Philadelphia	5	4	-1
SC	Columbia	Richland	4	5	1
SD	Sioux Falls	Lincoln	3	2	-1
SD	Sioux Falls	Minnehaha	3	2	-1
TN	Nashville	Davidson	3	4	1
TN	Memphis	Shelby	3	4	1
TX	San Antonio	Bexar	8	8	0
TX	San Antonio	Comal	5	6	1
TX	San Antonio	Medina	2	3	1
TX	Dallas	Dallas	6	8	2
TX	El Paso	El Paso	5	5	0
TX	Houston	Harris	7	7	0
TX	McAllen	Hidalgo	6	7	1
TX	Austin	Travis	8	7	-1
UT	Salt Lake City	Salt Lake	6	5	-1
VA	Richmond	Henrico	3	4	1
WV	Huntington	Cabell	1	2	1
WV	Huntington	Wayne	1	2	1
WI	Milwaukee	Milwaukee	6	6	0
WY	Cheyenne	Laramie	2	1	-1

Source: Plan and premium information is from the plan landscape files for states using the HealthCare.gov platform in 2015 and 2016.

Note: Qualified health plan issuers are counted based on unique HIOS issuer ID number.

TABLE 13
It Pays to Shop: Percent of Current Marketplace Consumers Who Could Obtain Coverage for $100 or Less after Any Applicable Tax Credits in 2016, Regardless of Metal Level Chosen in 2015 in HealthCare.gov States

State	Monthly Premium After Advance Premium Tax Credits		
	$100 or less	$75 or less	$50 or less
HealthCare.gov States Total (37 States)	**78%**	**72%**	**65%**
AK	75%	70%	64%
AL	81%	76%	69%
AR	73%	66%	56%
AZ	74%	68%	56%
DE	71%	65%	57%
FL	84%	80%	73%
GA	81%	77%	70%
IA	74%	67%	58%
IL	64%	54%	44%
IN	70%	64%	55%
KS	71%	62%	53%
LA	85%	82%	78%
ME	72%	65%	56%
MI	77%	69%	60%
MO	79%	74%	68%
MS	85%	82%	76%
MT	79%	71%	64%
NC	85%	81%	75%
ND	69%	60%	49%
NE	76%	68%	59%
NH	64%	53%	47%
NJ	60%	53%	44%
NM	82%	70%	62%
NV	77%	69%	58%
OH	65%	57%	45%
OK	84%	79%	72%
OR	68%	58%	50%
PA	69%	63%	55%
SC	82%	77%	71%
SD	78%	70%	61%
TN	77%	71%	64%
TX	79%	73%	66%
UT	85%	77%	67%
VA	76%	70%	63%
WI	75%	69%	62%
WV	66%	59%	50%
WY	68%	60%	51%

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 37 states using the HealthCare.gov platform in 2015 and 2016.
Note: Columns may not sum due to rounding. This analysis holds all enrollee characteristics unchanged and calculates 2016 premiums and tax credits based on the same age, family composition, and household income as percentage of the FPL as in 2015. This analysis includes only enrollees who could be linked to complete plan and premium data for both 2015 and 2016, and excludes tobacco users. Catastrophic plans, which are not available to all consumers, were not considered in these calculations. See the "Methods and Limitations" section for more details.

TABLE 14
It Pays to Shop: Potential Savings from Shopping Based on Premium if Current Marketplace Enrollees Switch to 2016 Lowest-Cost Premium Plan within Metal Level in HealthCare.gov States

State	Average 2016 Monthly Premium Savings if Consumers Switch to Lowest-Cost Plan within Metal Level	Annual Average Potential Savings in Premium Costs per Enrollee	% of Enrollees Who Could Save on Premium Costs by Switching to the Lowest-Cost Plan within Metal Level
HealthCare.gov States Average (37 States)	$51	$610	86%
AK	$67	$804	70%
AL	$49	$593	87%
AR	$20	$234	91%
AZ	$52	$622	94%
DE	$25	$302	83%
FL	$37	$450	78%
GA	$57	$683	96%
IA	$36	$427	65%
IL	$86	$1,030	96%
IN	$87	$1,042	96%
KS	$42	$504	58%
LA	$66	$788	75%
ME	$10	$125	44%
MI	$75	$895	91%
MO	$42	$502	86%
MS	$43	$513	91%
MT	$20	$234	78%
NC	$55	$663	84%
ND	$29	$345	91%
NE	$41	$494	85%
NH	$52	$622	98%
NJ	$67	$804	84%
NM	$51	$612	60%
NV	$31	$369	77%
OH	$77	$923	85%
OK	$29	$344	66%
OR	$47	$569	84%
PA	$38	$450	92%
SC	$33	$395	99%
SD	$18	$217	71%
TN	$60	$726	87%
TX	$53	$637	93%
UT	$60	$723	90%

VA	$27	$326	72%
WI	$69	$828	79%
WV	$19	$229	77%
WY	$16	$191	53%

Source: Plan information is from the plan landscape files and active plan selections in the CMS Multidimensional Insurance Data Analytics System (MIDAS) for 37 states using the HealthCare.gov platform in 2015 and 2016. Hawaii is not included in this analysis.

Note: Amounts presented here do not take into account potential tax credits. The lowest-cost premium refers to the plan with the lowest premium within the county within each metal tier and is based on all the plans available in 2016. The lowest cost plan does not take into account other cost-sharing features, but refers only to the cost of the premium charged for that plan. In some cases, plans were tied for lowest premium. This analysis includes only enrollees linked to complete plan and premium data for both 2015 and 2016, and excludes tobacco users. Catastrophic plans, which are not available to all consumers, were not considered in these calculations. We assume that *all* enrollee characteristics are unchanged and calculate premiums based on the same age, family composition, and household income as percentage of the FPL as in 2015. See the "Methods and Limitations" section for more details.

Estimates of Eligibility for ACA Coverage among the Uninsured by Race and Ethnicity

Samantha Artiga, Anthony Damico, and Rachel Garfield

The Affordable Care Act (ACA) extends health insurance coverage to people who lack access to an affordable coverage option. Under the ACA, as of 2014, Medicaid coverage is extended to low-income adults in states that have opted to expand eligibility, and tax credits are available for middle-income people who purchase coverage through a health insurance Marketplace. Millions of people have enrolled in these new coverage options, but millions of others are still uninsured. Some remain ineligible for coverage, and others may be unaware of the availability of new coverage options or still find coverage unaffordable even with financial assistance.

A recent Kaiser Family Foundation analysis provided national and state-by-state estimates of eligibility for ACA coverage options among those who remained uninsured, which showed that nearly half of the nonelderly uninsured are eligible for assistance in 2015.[1] This analysis builds off of that work to provide national estimates of eligibility for ACA coverage options by race/ethnicity, including Whites, Blacks, and Hispanics. Analysis by additional groups was not possible due to sample size limitations. The analysis is based on Kaiser Family Foundation analysis of the 2015 Current Population Survey, combined with other data sources. We estimate coverage and eligibility as of early 2015, which is prior to the end of the 2015 Marketplace open enrollment period. An overview of the methodology underlying the analysis can be found in the Methods box at the end of the brief, and more detail is available in the Technical Appendices available here.

Background

The ACA fills historical gaps in Medicaid eligibility by extending Medicaid to nearly all nonelderly adults with incomes at or below 138% of the federal poverty level (FPL) ($27,724 for a family of three in 2015[2]). With the June 2012 Supreme Court ruling, the Medicaid expansion essentially became optional for states, and as of September 2015, 30 states and DC had expanded Medicaid eligibility under the ACA. Under rules in place before the ACA, all states already extended public coverage to poor and low-income children, with a median income eligibility level of 255% of poverty in 2015.[3] The ACA also established Health Insurance Marketplaces where individuals can purchase insurance and allows for federal tax credits for such coverage for people with incomes from 100% to 400% FPL ($19,790 to $79,160 for a family of three in 2015).[4, 5] Tax credits are generally only available to people who are not eligible for other coverage.

Because the ACA envisioned low-income people receiving coverage through Medicaid, people with incomes below poverty are not eligible for Marketplace subsidies. Thus, in the 20 states not implementing the Medicaid expansion, some adults fall into a "coverage gap" of earning too much to qualify for Medicaid but not enough to qualify for premium tax credits. In addition, undocumented immigrants are ineligible for Medicaid coverage

and barred from purchasing coverage through a Marketplace. In most cases, lawfully present immigrants are subject to a five-year waiting period before they may enroll in Medicaid, though they can purchase coverage through a Marketplace and may receive tax credits for such coverage.
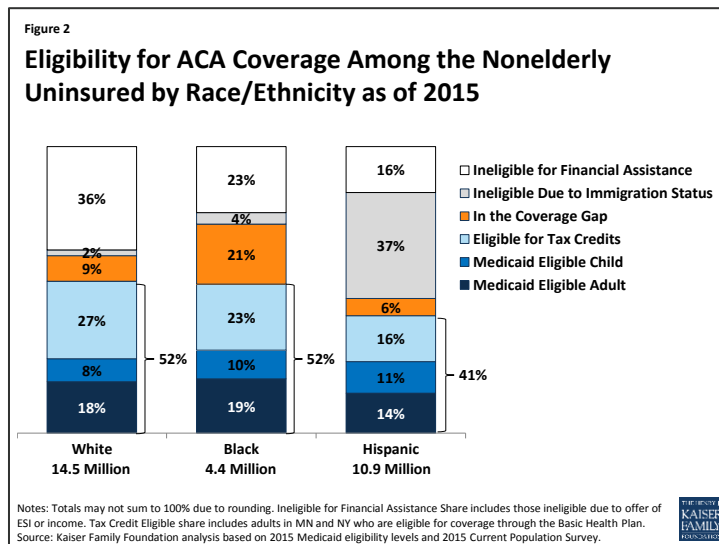
Eligibility for Assistance under the ACA by Race and Ethnicity

More than half (55%) of the total 32.3 million nonelderly uninsured are people of color. This includes 34% who identify as Hispanic, 14% who identify as Black, and 8% who identify as another group or mixed race (Figure 1).

Figure 1

Distribution of Nonelderly Uninsured by Race/Ethnicity, 2015

Black 14%

White 45%

Hispanic 34%

Other 8%

Total People of Color 55%

Total Nonelderly Uninsured: 32.3 Million

SOURCE: Kaiser Family Foundation analysis of 2015 Current Population Survey data.
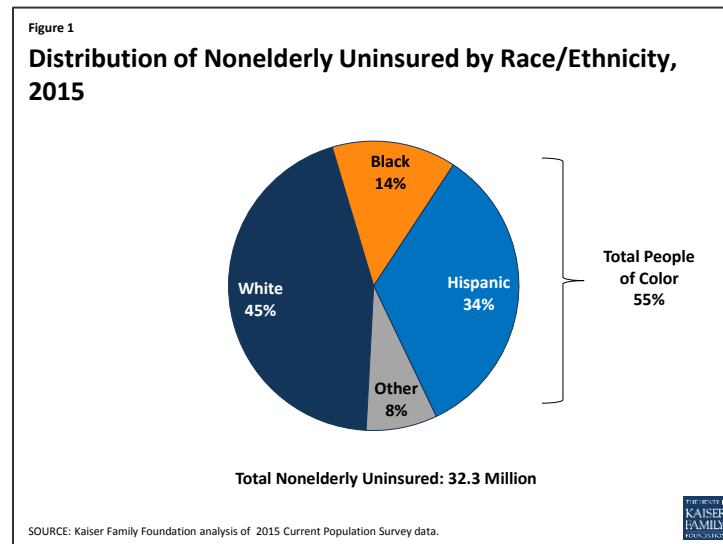
Just over half (52%) of uninsured Whites and Blacks qualify for assistance under the ACA (Figure 2). Over a quarter of uninsured Whites (26%) are Medicaid eligible children and adults, and 29% of uninsured Blacks are Medicaid eligible adults and children. Those who are Medicaid eligible include people who were previously eligible as well as those newly eligible under the ACA. Roughly a quarter of both uninsured Whites and Blacks qualify for premium tax credits to purchase coverage through the Marketplace.[6] However, uninsured Blacks are more than twice as likely as uninsured Whites (21% vs. 9%) to fall into the coverage gap. This reflects the fact that a large share of uninsured Blacks resides in the southern region of the country where most states have not adopted the Medicaid expansion. Small shares of both uninsured Whites and Blacks are ineligible based on immigration status. Over a third of uninsured Whites (36%) and nearly a quarter of uninsured Blacks (23%) are ineligible for financial assistance either because they have an offer of ESI or an income above the limit for premium tax credits but could purchase unsubsidized Marketplace coverage.

A smaller share of uninsured Hispanics (41%) qualifies for assistance compared to uninsured Whites (52%). Much of this difference is because a larger share of uninsured Hispanics (37%) is ineligible due to immigration status compared to Whites (2%). Moreover, a small share of uninsured Hispanics falls into the coverage gap since several key states that have large numbers of uninsured Hispanics have adopted the expansion, including California, New York, and Arizona.
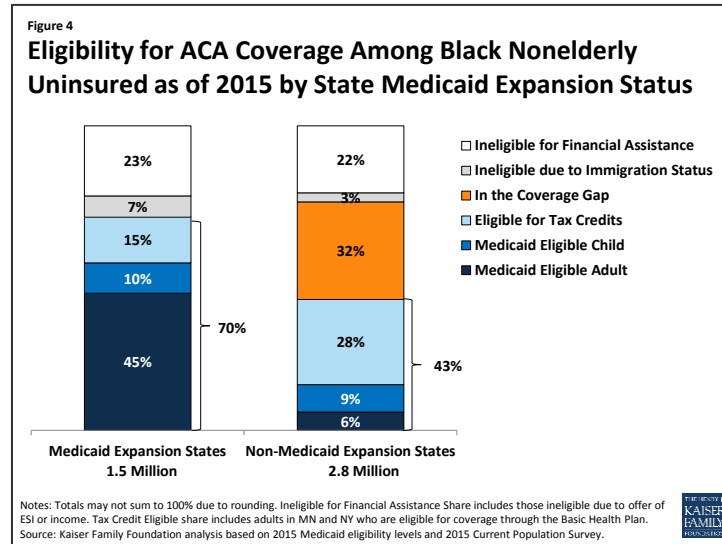
Figure 2

Eligibility for ACA Coverage Among the Nonelderly Uninsured by Race/Ethnicity as of 2015

Notes: Totals may not sum to 100% due to rounding. Ineligible for Financial Assistance Share includes those ineligible due to offer of ESI or income. Tax Credit Eligible share includes adults in MN and NY who are eligible for coverage through the Basic Health Plan.
Source: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

Eligibility for Assistance Under the ACA by Race and Ethnicity and State Medicaid Expansion Status

Patterns of eligibility for each racial/ethnic group also vary depending on whether a state has expanded Medicaid to low-income adults.

Uninsured Whites are more likely to be eligible for assistance in expansions states compared to non-expansion states (62% vs. 43%) since there is no coverage gap in the expansion states (Figure 3). Without the coverage gap, 40% of uninsured Whites are eligible for Medicaid in expansion states. In the non-expansion states only 11% are eligible for Medicaid, while 19% fall in the coverage gap. In the non-expansion states, eligibility for tax credits partially offsets the gap since individuals with incomes between 100-138% can receive tax credits in these states. As such, a larger share of uninsured Whites is eligible for tax credits in non-expansion states compared to expansion states (32% vs. 22%).

Figure 3

Eligibility for ACA Coverage Among White Nonelderly Uninsured as of 2015 by State Medicaid Expansion Status

Notes: Totals may not sum to 100% due to rounding. Ineligible for Financial Assistance Share includes those ineligible due to offer of ESI or income. Tax Credit Eligible share includes adults in MN and NY who are eligible for coverage through the Basic Health Plan.
Source: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

Medicaid expansion decisions have a large impact on eligibility for coverage among uninsured Blacks. In expansion states, seven in ten (70%) of uninsured Blacks are eligible for coverage, including over half (55%) who are eligible for Medicaid. In contrast, in non-expansion states only 15% of uninsured Blacks are eligible for Medicaid while nearly a third (32%) fall into the coverage gap. As such, in the expansion states, less than half (43%) of uninsured Blacks are eligible for assistance.

Figure 4
Eligibility for ACA Coverage Among Black Nonelderly Uninsured as of 2015 by State Medicaid Expansion Status

Notes: Totals may not sum to 100% due to rounding. Ineligible for Financial Assistance Share includes those ineligible due to offer of ESI or income. Tax Credit Eligible share includes adults in MN and NY who are eligible for coverage through the Basic Health Plan.
Source: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

Most uninsured Hispanics remain ineligible for assistance in both expansion and non-expansion states. A larger share of uninsured Hispanics is eligible for assistance in expansion states compared to non-expansion states (48% vs. 33%). However, this difference is not as large as the differences observed for uninsured Blacks and Whites since a smaller share fall into the coverage gap in the non-expansion states and significantly larger shares remain ineligible due to immigration status in both expansion and non-expansion states.
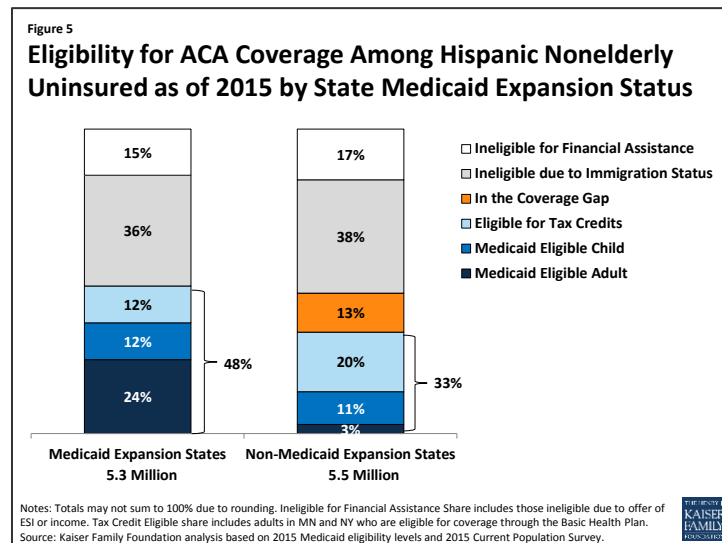
Figure 5
Eligibility for ACA Coverage Among Hispanic Nonelderly Uninsured as of 2015 by State Medicaid Expansion Status

Notes: Totals may not sum to 100% due to rounding. Ineligible for Financial Assistance Share includes those ineligible due to offer of ESI or income. Tax Credit Eligible share includes adults in MN and NY who are eligible for coverage through the Basic Health Plan.
Source: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

Discussion

Though millions of people have gained coverage under the ACA, many remain uninsured. The ACA provides new coverage options across the income spectrum for low and moderate-income people, and overall nearly half of the uninsured population appears to be eligible for Medicaid or subsidized Marketplace coverage. For these individuals, outreach and education about coverage and financial assistance may be important to continuing coverage gains that were seen in the first two years of full ACA implementation. However, there are distinctions in eligibility patterns by race and ethnicity.

The data show that the Medicaid expansion is an important coverage pathway for uninsured Blacks in states that have adopted the expansion, as over half of uninsured Blacks in these states are Medicaid eligible. However, Blacks are disproportionately impacted by the coverage gap resulting from state decisions not to expand Medicaid. Overall, uninsured Blacks are more than twice as likely as uninsured Whites to fall into the gap (21% vs. 9%), and nearly a third (32%) of uninsured Blacks in non-expansion states fall into the gap.

The data also show that a larger share of Hispanics remains outside the reach of the ACA compared to other groups. Overall, more than one-third of uninsured Hispanics remain ineligible for coverage options due to immigration status. In the absence of coverage options, many of these individuals will likely remain uninsured.

Across racial and ethnic groups, a remaining share of individuals also remains ineligible for assistance because they have access to employer coverage that may be considered affordable or have incomes too high to qualify for Medicaid or Marketplace subsidies. Increased penalties under the ACA's so-called "individual mandate" in 2016 may encourage some of them to obtain coverage.

As the beginning of open enrollment for 2016 Marketplace coverage approaches, there are still substantial opportunities to increase coverage by reaching those who are eligible for help under the ACA. Understanding how eligibility for coverage options varies by race and ethnicity may help inform outreach and education efforts and provide increased understanding of the scope of remaining coverage gains that can be achieved. These differences also have important implications for efforts to promote greater health equity moving forward.

Samantha Artiga and Rachel Garfield are with the Kaiser Family Foundation. Anthony Damico is an independent consultant to the Kaiser Family Foundation.

Methods

This analysis uses data from the 2015 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC). The CPS ASEC provides socioeconomic and demographic information for the United Sates population and specific subpopulations. Importantly, the CPS ASEC provides detailed data on families and households, which we use to determine income for ACA eligibility purposes.

The CPS asks respondents about coverage at the time of the interview (for the 2015 CPS, February, March, or April 2015) as well as throughout the preceding calendar year. People who report any type of coverage throughout the preceding calendar year are counted as "insured." Thus, the calendar year measure of the uninsured population captures people who lacked coverage for the entirety of 2014 (and thus were uninsured at the start of 2015). We use this measure of insurance coverage, rather than the measure of coverage at the time of interview, because the latter lacks detail about coverage type that is used in our model. Based on other survey data, as well as administrative data on ACA enrollment, it is likely that a small number of people included in this analysis gained coverage in 2015.

Medicaid and Marketplaces have different rules about household composition and income for eligibility. For this analysis, we calculate household membership and income for both Medicaid and Marketplace premium tax credits for each person individually, using the rules for each program. For more detail on how we construct Medicaid and Marketplace households and count income, see the detailed technical Appendix A available here.

Undocumented immigrants are ineligible for Medicaid and Marketplace coverage. Since CPS data do not directly indicate whether an immigrant is lawfully present, we draw on the methods underlying the 2013 analysis by the State Health Access Data Assistance Center (SHADAC) and the recommendations made by Van Hook et. al.[7,8] This approach uses the Survey of Income and Program Participation (SIPP) to develop a model that predicts immigration status; it then applies the model to CPS, controlling to state-level estimates of total undocumented population from Department of Homeland Security. For more detail on the immigration imputation used in this analysis, see the technical Appendix B available here.

Individuals in tax-filing units with access to an affordable offer of Employer-Sponsored Insurance are still potentially MAGI-eligible for Medicaid coverage, but they are ineligible for advance premium tax credits in the Health Insurance Exchanges. Since CPS data do not directly indicate whether workers have access to ESI, we draw on the methods comparable to our imputation of authorization status and use SIPP to develop a model that predicts offer of ESI, then apply the model to CPS. For more detail on the offer imputation used in this analysis, see the technical Appendix C available here.

As of January 2014, Medicaid financial eligibility for most nonelderly adults is based on modified adjusted gross income (MAGI). To determine whether each individual is eligible for Medicaid, we use each state's reported eligibility levels as of January 1, 2015, updated to reflect state implementation of the Medicaid expansion as of September 2015 and 2015 Federal Poverty Levels.[9] Some nonelderly adults with incomes above MAGI levels may be eligible for Medicaid through other pathways; however, we only assess eligibility through the MAGI pathway.[10]

An individual's income is likely to fluctuate throughout the year, impacting his or her eligibility for Medicaid. Our estimates are based on annual income and thus represent a snapshot of the number of people in the coverage gap at a given point in time. Over the course of the year, a larger number of people are likely to move and out of the coverage gap as their income fluctuates.

Endnotes

[1] Garfield, R., et al. October 2015. *New Estimates of Eligibility for ACA Coverage among the Uninsured.* (Washington, DC: Kaiser Family Foundation.) Available at: http://kff.org/uninsured/issue-brief/new-estimates-of-eligibility-for-aca-coverage-among-the-uninsured/.

[2] U.S. Department of Health and Human Services, Office of The Assistant Secretary for Planning and Evaluation, 2015 Poverty Guidelines. Available at: http://aspe.hhs.gov/2015-poverty-guidelines.

[3] Kaiser Family Foundation State Health Facts Online. *Medicaid/CHIP Upper Income Eligibility Limits for Children, 2000-2015.* Available at: http://kff.org/medicaid/state-indicator/medicaidchip-upper-income-eligibility-limits-for-children-2000-2015/.

[4] U.S. Department of Health and Human Services, Office of The Assistant Secretary for Planning and Evaluation, 2014 Poverty Guidelines. Available at: http://aspe.hhs.gov/2014-poverty-guidelines

[5] Tax credit eligibility in 2015 is based on 2014 poverty guidelines. In addition to the premium tax credits, the federal government also makes available cost-sharing subsidies to reduce what people with incomes between 100% and 250% of poverty have to pay out-of-pocket to access health services. The cost-sharing subsidies are also available on a sliding scale based on income.

[6] Includes individuals in Minnesota and New York who are eligible for coverage through the Basic Health Plan.

[7] State Health Access Data Assistance Center. 2013. "State Estimates of the Low-income Uninsured Not Eligible for the ACA Medicaid Expansion." Issue Brief #35. Minneapolis, MN: University of Minnesota. Available at: http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2013/rwjf404825

[8] Van Hook, J., Bachmeier, J., Coffman, D., and Harel, O. 2015. "Can We Spin Straw into Gold? An Evaluation of Immigrant Legal Status Imputation Approaches" *Demography.* 52(1):329-54.

[9] Based on state-reported eligibility levels as of January 1, 2015. Eligibility levels are updated to reflect state implementation of the Medicaid expansion as of September 2015 and 2015 Federal Poverty Levels, but may not reflect other eligibility policy changes since January 2015. The Kaiser Family Foundation State Health Facts. Data Source: Kaiser Commission on Medicaid and the Uninsured with the Georgetown University Center for Children and Families: Modern Era Medicaid: Findings from a 50-State Survey of Eligibility, Enrollment, Renewal, and Cost-Sharing Policies in Medicaid and CHIP as of January 2015, Kaiser Family Foundation, January 20, 2015.

[10] Non-MAGI pathways for nonelderly adults include disability-related pathways, such as SSI beneficiary; Qualified Severely Impaired Individuals; Working Disabled; and Medically Needy. We are unable to assess disability status in the CPS sufficiently to model eligibility under these pathways. However, previous research indicates high current participation rates among individuals with disabilities (largely due to the automatic link between SSI and Medicaid in most states, see Kenney GM, V Lynch, J Haley, and M Huntress. "Variation in Medicaid Eligibility and Participation among Adults: Implications for the Affordable Care Act." *Inquiry.* 49:231-53 (Fall 2012)), indicating that there may be a small number of eligible uninsured individuals in this group. Further, many of these pathways (with the exception of SSI, which automatically links an individual to Medicaid in most states) are optional for states, and eligibility in states not implementing the ACA expansion is limited. For example, the median income eligibility level for coverage through the Medically Needy pathway is 15% of poverty in states that are not expanding Medicaid, and most states not expanding Medicaid do not provide coverage above SSI levels for individuals with disabilities. (See: O'Mally-Watts, M and K Young. *The Medicaid Medically Needy Program: Spending and Enrollment Update.* (Washington, DC: Kaiser Family Foundation), December 2012. Available at: http://www.kff.org/medicaid/issue-brief/the-medicaid-medically-needy-program-spending-and/. And Kaiser Commission on Medicaid and the Uninsured, "Medicaid Financial Eligibility: Primary Pathways for the Elderly and People with Disabilities," February 2010. Available at: http://www.kff.org/medicaid/issue-brief/medicaid-financial-eligibility-primary-pathways-for-the-elderly-and-people-with-disabilities/.

October 2015 | Data Note

New Estimates of Eligibility for ACA Coverage among the Uninsured

Rachel Garfield, Anthony Damico, Cynthia Cox, Gary Claxton, Larry Levitt

The Affordable Care Act (ACA) extends health insurance coverage to people who lack access to an affordable coverage option. Under the ACA, as of 2014, Medicaid coverage is extended to low-income adults in states that have opted to expand eligibility, and tax credits are available for middle-income people who purchase coverage through a health insurance Marketplace. Millions of people have enrolled in these new coverage options, but millions of others are still uninsured. Some remain ineligible for coverage, and others may be unaware of the availability of new coverage options or still find coverage unaffordable even with financial assistance.

This analysis provides national and state-by-state estimates of eligibility for ACA coverage options among those who remained uninsured. It is based on Kaiser Family Foundation analysis of the 2015 Current Population Survey, combined with other data sources. We estimate coverage and eligibility as of early 2015, which is prior to the end of the 2015 Marketplace open enrollment period. An overview of the methodology underlying the analysis can be found in the Methods box at the end of the data note, and more detail is available in the Technical Appendices available here.

Background: How Does the ACA Expand Health Coverage?

The ACA fills historical gaps in Medicaid eligibility by extending Medicaid to nearly all nonelderly adults with incomes at or below 138% of the federal poverty level (FPL) ($27,724 for a family of three in 2015[1]). With the June 2012 Supreme Court ruling, the Medicaid expansion essentially became optional for states, and as of September 2015, 30 states and DC had expanded Medicaid eligibility under the ACA. Under rules in place before the ACA, all states already extended public coverage to poor and low-income children, with a median income eligibility level of 255% of poverty in 2015.[2] The ACA also established Health Insurance Marketplaces where individuals can purchase insurance and allows for federal tax credits for such coverage for people with incomes from 100% to 400% FPL ($19,790 to $79,160 for a family of three in 2015).[3, 4] Tax credits are generally only available to people who are not eligible for other coverage.

Because the ACA envisioned low-income people receiving coverage through Medicaid, people with incomes below poverty are not eligible for Marketplace subsidies. Thus, in the 20 states not implementing the Medicaid expansion, some adults fall into a "coverage gap" of earning too much to qualify for Medicaid but not enough to qualify for premium tax credits. In addition, undocumented immigrants are ineligible for Medicaid coverage and barred from purchasing coverage through a Marketplace. In most cases, lawfully present immigrants are subject to a five-year waiting period before they may enroll in Medicaid, though they can purchase coverage through a Marketplace and may receive tax credits for such coverage.

How Many Uninsured Are Eligible for Assistance under the ACA?

As of the beginning of 2015, 32.3 million nonelderly people lacked health coverage in the U.S. Nationally, we estimate that nearly half (15.7 million, or 49%) of this population is eligible for financial assistance to gain coverage through either Medicaid or subsidized Marketplace coverage (Figure 1 and Tables 1 and 2). More than a quarter are either adults eligible for Medicaid (5.4 million, or 17%) or children eligible for Medicaid or the Children's Health Insurance Program (CHIP) (3.2 million, or 10%). Those who are Medicaid eligible include people who were previously eligible as well as those newly eligible under the ACA. About one in five (7.1 million, or 22%) of the nonelderly uninsured are eligible for premium tax credits to purchase coverage through the Marketplace.[5]

One in ten uninsured people (3.1 million) fall into the coverage gap due to their state's decision not to expand Medicaid, and 15% of the uninsured (4.9 million) are undocumented immigrants who are ineligible for ACA coverage under federal law.

The remainder of the uninsured either has an offer of ESI (4.9 million, or 15%) or has an income above the limit for premium tax credits but could purchase unsubsidized Marketplace coverage (3.7 million, or 12%). We cannot determine from available survey data if the offer of ESI would be considered affordable under the law, which would make the individual ineligible for a Marketplace premium subsidy.

Figure 1

Eligibility for ACA Coverage Among Nonelderly Uninsured as of 2015

Total = 32.3 Million Nonelderly Uninsured

NOTES: Numbers may not sum to subtotals or 100% due to rounding. Tax Credit Eligible share includes adults in MN and NY who are eligible for coverage through the Basic Health Plan.
SOURCE: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

Figure 2

Eligibility for ACA Coverage Among Nonelderly Uninsured as of 2015, by State Medicaid Expansion Status

NOTES: Totals may not sum to 100% due to rounding. Tax Credit Eligible share in expansion states includes adults in MN and NY who are eligible for coverage through the Basic Health Plan.
SOURCE: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

Patterns of eligibility vary by state (Tables 1 and 2), depending on state decisions about expanding Medicaid, premiums in the exchange, and underlying demographic factors such as poverty rates and access to employer coverage. In states that expanded Medicaid, 40% of the nonelderly uninsured population is eligible for Medicaid, versus just 13% in states that have not expanded Medicaid (Figure 2). No one in Medicaid expansion states falls into a coverage gap; in non-expansion states, nearly one in five (19%) uninsured people falls into the coverage gap, while about two-thirds as many are eligible for Medicaid under pathways in place before the ACA. Because adults with incomes from 100% to 138% of poverty in non-expansion states can receive tax credits for Marketplace coverage, a larger share of the uninsured population in those states is eligible for Marketplace tax credits than in expansion states (27% versus 17%).
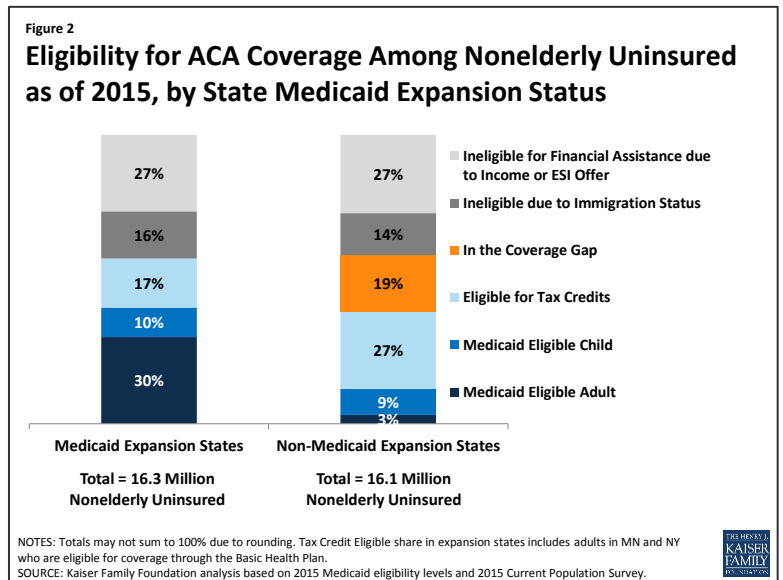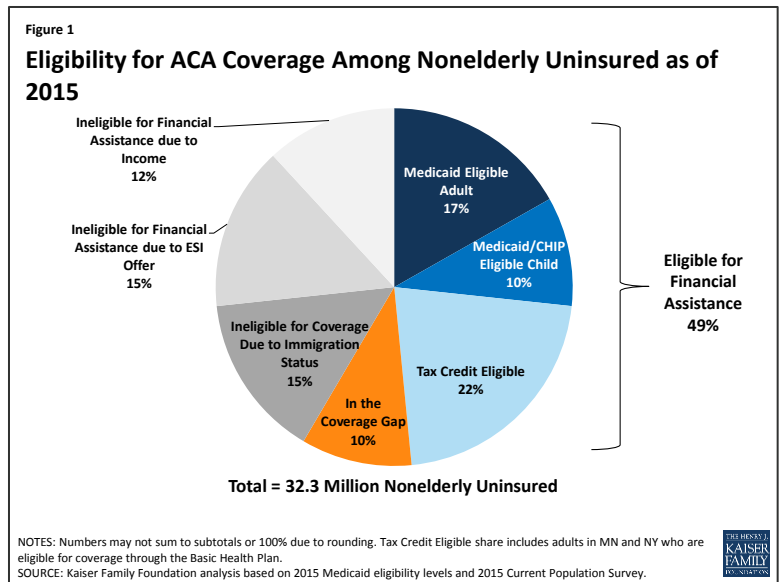
Discussion

Though millions of people have gained coverage under the ACA, many remain uninsured. The ACA provides new coverage options across the income spectrum for low and moderate-income people, and nearly half of the uninsured population appear to be eligible for Medicaid or subsidized Marketplace coverage. For these individuals, outreach and education about coverage and financial assistance may be important to continuing coverage gains that were seen in the first two years of full ACA implementation. Data from other sources indicates that misperceptions about cost, lack of awareness of financial assistance, and confusion about eligibility rules were barriers to some eligible uninsured gaining coverage.[6] Others report that they found coverage to be too expensive, even with the availability of financial assistance.[7]

A quarter of the remaining uninsured population is outside the reach of the ACA due to either their immigration status or their state's decision not to expand Medicaid. People in the coverage gap would be eligible for Medicaid should their state opt to expand Medicaid but are otherwise likely to remain uninsured, as they have limited incomes, are unlikely to have an affordable offer of coverage from an employer, and do not have access to affordable coverage options under the ACA. Many undocumented immigrants also will likely remain uninsured.[8]

Approximately a quarter of the uninsured population is not eligible for any assistance under the ACA because they have access to employer coverage that may be considered affordable or have incomes too high to qualify for Medicaid or Marketplace subsidies. Increased penalties under the ACA's so-called "individual mandate" in 2016 may encourage some of them to obtain coverage.

As the beginning of open enrollment for 2016 Marketplace coverage approaches, there are still substantial opportunities to increase coverage by reaching those who are eligible for help under the ACA, but the breakdown of who the remaining uninsured are suggests that many may be difficult to reach and will still remain uninsured.

> Rachel Garfield, Cynthia Cox, Gary Claxton, and Larry Levitt are with the Kaiser Family Foundation. Anthony Damico is an independent consultant to the Kaiser Family Foundation.

Table 1: Number of Nonelderly People Eligible for ACA Coverage Among those Remaining Uninsured as of 2015					
State	Total Uninsured	Medicaid Eligible	Tax Credit Eligible	Ineligible for Financial Assistance due to Income, ESI Offer, or Citizenship	In Medicaid Coverage Gap
US Total	32,339,000	8,587,000	7,078,000	13,587,000	3,087,000
Alabama	513,000	75,000	160,000	139,000	139,000
Alaska	100,000	51,000	20,000	29,000	-
Arizona	808,000	368,000	100,000	341,000	-
Arkansas	285,000	127,000	60,000	98,000	-
California	3,845,000	1,428,000	623,000	1,795,000	-
Colorado	593,000	223,000	104,000	266,000	-
Connecticut	247,000	69,000	62,000	116,000	-
Delaware	63,000	22,000	15,000	25,000	-
DC	42,000	20,000	N/A	19,000	-
Florida	2,788,000	306,000	825,000	1,091,000	567,000
Georgia	1,524,000	201,000	406,000	612,000	305,000
Hawaii	70,000	35,000	N/A	28,000	-
Idaho	166,000	21,000	43,000	72,000	30,000
Illinois	1,122,000	397,000	166,000	559,000	-
Indiana	686,000	310,000	128,000	248,000	-
Iowa	188,000	88,000	30,000	71,000	-
Kansas	302,000	38,000	83,000	131,000	49,000
Kentucky	285,000	121,000	N/A	119,000	-
Louisiana	582,000	49,000	173,000	169,000	192,000
Maine	121,000	18,000	40,000	39,000	24,000
Maryland	336,000	133,000	43,000	160,000	-
Massachusetts	288,000	93,000	N/A	147,000	-
Michigan	685,000	320,000	147,000	218,000	-
Minnesota	364,000	126,000	45,000^	193,000	-
Mississippi	359,000	42,000	104,000	106,000	108,000
Missouri	516,000	52,000	156,000	198,000	109,000
Montana*	126,000	59,000	27,000	40,000	-
Nebraska	178,000	16,000	46,000	90,000	27,000
Nevada	350,000	147,000	61,000	143,000	-
New Hampshire	94,000	37,000	17,000	41,000	-
New Jersey	940,000	335,000	131,000	473,000	-
New Mexico	233,000	109,000	31,000	94,000	-
New York	1,476,000	548,000	317,000^	611,000	-
North Carolina	1,138,000	152,000	289,000	452,000	244,000
North Dakota	64,000	24,000	16,000	24,000	-
Ohio	834,000	404,000	165,000	264,000	-
Oklahoma	581,000	109,000	144,000	236,000	91,000
Oregon	307,000	122,000	N/A	150,000	-
Pennsylvania	994,000	477,000	180,000	338,000	-
Rhode Island	55,000	27,000	13,000	15,000	-
South Carolina	604,000	100,000	186,000	195,000	123,000
South Dakota	77,000	12,000	22,000	30,000	13,000
Tennessee	605,000	104,000	127,000	257,000	118,000
Texas	4,425,000	493,000	1,035,000	2,132,000	766,000
Utah	337,000	66,000	92,000	138,000	41,000
Vermont	34,000	8,000	11,000	15,000	-
Virginia	804,000	77,000	235,000	361,000	131,000
Washington	621,000	238,000	116,000	267,000	-
West Virginia	116,000	56,000	31,000	29,000	-
Wisconsin	410,000	129,000	100,000	181,000	†
Wyoming	56,000	6,000	19,000	20,000	11,000

NOTES: Numbers may not sum to totals due to rounding. * Montana has passed legislation adopting the expansion; the legislation requires federal waiver approval before it can go into effect. For purposes of this analysis, MT is considered an expansion state. ^ Tax credit-eligible population in Minnesota and New York include uninsured adults who are eligible for coverage through the Basic Health Plan. † Wisconsin covers adults up to 100% FPL in Medicaid under a waiver but did not adopt the ACA expansion. Estimates of subsidy eligibility of uninsured nonelderly in DC, HI, KY, MA, and OR are "N/A" because point estimates do not meet minimum standards for statistical reliability.
SOURCE: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

State	Total Uninsured	Medicaid Eligible	Tax Credit Eligible	Ineligible for Financial Assistance due to Income, ESI Offer, or Citizenship	In Medicaid Coverage Gap
US Total	**32,339,000**	**27%**	**22%**	**42%**	**10%**
Alabama	513,000	15%	31%	27%	27%
Alaska	100,000	51%	20%	29%	-
Arizona	808,000	46%	12%	42%	-
Arkansas	285,000	44%	21%	34%	-
California	3,845,000	37%	16%	47%	-
Colorado	593,000	38%	18%	45%	-
Connecticut	247,000	28%	25%	47%	-
Delaware	63,000	35%	24%	40%	-
DC	42,000	48%	N/A	45%	-
Florida	2,788,000	11%	30%	39%	20%
Georgia	1,524,000	13%	27%	40%	20%
Hawaii	70,000	50%	N/A	39%	-
Idaho	166,000	13%	26%	44%	18%
Illinois	1,122,000	35%	15%	50%	-
Indiana	686,000	45%	19%	36%	-
Iowa	188,000	47%	16%	38%	-
Kansas	302,000	13%	28%	43%	16%
Kentucky	285,000	43%	N/A	42%	-
Louisiana	582,000	8%	30%	29%	33%
Maine	121,000	15%	33%	32%	20%
Maryland	336,000	40%	13%	48%	-
Massachusetts	288,000	32%	N/A	51%	-
Michigan	685,000	47%	21%	32%	-
Minnesota	364,000	35%	12%^	53%	-
Mississippi	359,000	12%	29%	29%	30%
Missouri	516,000	10%	30%	38%	21%
Montana*	126,000	47%	22%	32%	-
Nebraska	178,000	9%	26%	50%	15%
Nevada	350,000	42%	17%	41%	-
New Hampshire	94,000	39%	18%	43%	-
New Jersey	940,000	36%	14%	50%	-
New Mexico	233,000	47%	13%	40%	-
New York	1,476,000	37%	21%^	41%	-
North Carolina	1,138,000	13%	25%	40%	21%
North Dakota	64,000	37%	25%	38%	-
Ohio	834,000	48%	20%	32%	-
Oklahoma	581,000	19%	25%	41%	16%
Oregon	307,000	40%	N/A	49%	-
Pennsylvania	994,000	48%	18%	34%	-
Rhode Island	55,000	49%	23%	27%	-
South Carolina	604,000	17%	31%	32%	20%
South Dakota	77,000	16%	29%	39%	17%
Tennessee	605,000	17%	21%	42%	19%
Texas	4,425,000	11%	23%	48%	17%
Utah	337,000	20%	27%	41%	12%
Vermont	34,000	24%	33%	43%	-
Virginia	804,000	10%	29%	45%	16%
Washington	621,000	38%	19%	43%	-
West Virginia	116,000	48%	27%	25%	-
Wisconsin	410,000	32%	24%	44%	†
Wyoming	56,000	11%	34%	36%	19%

NOTES: Numbers may not sum to 100% due to rounding. * Montana has passed legislation adopting the expansion; the legislation requires federal waiver approval before it can go into effect. For purposes of this analysis, MT is considered an expansion state. ^ Tax credit-eligible population in Minnesota and New York include uninsured adults who are eligible for coverage through the Basic Health Plan. † Wisconsin covers adults up to 100% FPL in Medicaid under a waiver but did not adopt the ACA expansion. Estimates of subsidy eligibility of uninsured nonelderly in DC, HI, KY, MA, and OR are "N/A" because point estimates do not meet minimum standards for statistical reliability.
SOURCE: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

	Number of Nonelderly People Ineligible due to:				% of Nonelderly Uninsured Ineligible due to:			
State	Total Ineligible Due to Income, ESI Offer, or Citizenship	Income	Employer Offer	Citizenship	Total Ineligible Due to Income, ESI Offer, or Citizenship	Income	Employer Offer	Citizenship
US Total	**13,587,000**	**3,724,000**	**4,927,000**	**4,936,000**	**42%**	**12%**	**15%**	**15%**
Arizona	341,000	113,000	100,000	127,000	42%	14%	12%	16%
Arkansas	98,000	25,000	45,000	28,000	34%	9%	16%	10%
California	1,795,000	396,000	476,000	922,000	47%	10%	12%	24%
Colorado	266,000	72,000	95,000	99,000	45%	12%	16%	17%
Florida	1,091,000	290,000	417,000	384,000	39%	10%	15%	14%
Georgia	612,000	187,000	233,000	192,000	40%	12%	15%	13%
Illinois	559,000	173,000	151,000	235,000	50%	15%	13%	21%
Minnesota	193,000	66,000	73,000	55,000	53%	18%	20%	15%
Nebraska	90,000	31,000	33,000	26,000	50%	17%	18%	15%
Nevada	143,000	31,000	50,000	62,000	41%	9%	14%	18%
New Jersey	473,000	91,000	118,000	264,000	50%	10%	13%	28%
New Mexico	94,000	34,000	25,000	35,000	40%	14%	11%	15%
New York	611,000	150,000	242,000	220,000	41%	10%	16%	15%
North Carolina	452,000	119,000	190,000	143,000	40%	10%	17%	13%
Oklahoma	236,000	68,000	114,000	54,000	41%	12%	20%	9%
Oregon	150,000	45,000	50,000	56,000	49%	15%	16%	18%
Pennsylvania	338,000	123,000	149,000	66,000	34%	12%	15%	7%
Tennessee	257,000	88,000	99,000	69,000	42%	15%	16%	11%
Texas	2,132,000	416,000	652,000	1,064,000	48%	9%	15%	24%
Virginia	361,000	122,000	140,000	99,000	45%	15%	17%	12%
Washington	267,000	72,000	96,000	99,000	43%	12%	15%	16%

NOTES: States not included above do not have sufficient sample size to show distribution of uninsured nonelderly ineligible for financial assistance in at least one of the three categories (income, ESI, and/or citizenship). Numbers may not sum to totals due to rounding.
SOURCE: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels and 2015 Current Population Survey.

Methods

This analysis uses data from the 2015 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC). The CPS ASEC provides socioeconomic and demographic information for the United Sates population and specific subpopulations. Importantly, the CPS ASEC provides detailed data on families and households, which we use to determine income for ACA eligibility purposes.

The CPS asks respondents about coverage at the time of the interview (for the 2015 CPS, February, March, or April 2015) as well as throughout the preceding calendar year. People who report any type of coverage throughout the preceding calendar year are counted as "insured." Thus, the calendar year measure of the uninsured population captures people who lacked coverage for the entirety of 2014 (and thus were uninsured at the start of 2015). We use this measure of insurance coverage, rather than the measure of coverage at the time of interview, because the latter lacks detail about coverage type that is used in our model. Based on other survey data, as well as administrative data on ACA enrollment, it is likely that a small number of people included in this analysis gained coverage in 2015.

Medicaid and Marketplaces have different rules about household composition and income for eligibility. For this analysis, we calculate household membership and income for both Medicaid and Marketplace premium tax credits for each person individually, using the rules for each program. For more detail on how we construct Medicaid and Marketplace households and count income, see the detailed technical Appendix A available here.

Undocumented immigrants are ineligible for Medicaid and Marketplace coverage. Since CPS data do not directly indicate whether an immigrant is lawfully present, we draw on the methods underlying the 2013 analysis by the State Health Access Data Assistance Center (SHADAC) and the recommendations made by Van Hook et. al.[9,10] This approach uses the Survey of Income and Program Participation (SIPP) to develop a model that predicts immigration status; it then applies the model to CPS, controlling to state-level estimates of total undocumented population from Department of Homeland Security. For more detail on the immigration imputation used in this analysis, see the technical Appendix B available here.

Individuals in tax-filing units with access to an affordable offer of Employer-Sponsored Insurance are still potentially MAGI-eligible for Medicaid coverage, but they are ineligible for advance premium tax credits in the Health Insurance Exchanges. Since CPS data do not directly indicate whether workers have access to ESI, we draw on the methods comparable to our imputation of authorization status and use SIPP to develop a model that predicts offer of ESI, then apply the model to CPS. For more detail on the offer imputation used in this analysis, see the technical Appendix C available here.

As of January 2014, Medicaid financial eligibility for most nonelderly adults is based on modified adjusted gross income (MAGI). To determine whether each individual is eligible for Medicaid, we use each state's reported eligibility levels as of January 1, 2015, updated to reflect state implementation of the Medicaid expansion as of September 2015 and 2015 Federal Poverty Levels.[11] Some nonelderly adults with incomes above MAGI levels may be eligible for Medicaid through other pathways; however, we only assess eligibility through the MAGI pathway.[12]

An individual's income is likely to fluctuate throughout the year, impacting his or her eligibility for Medicaid. Our estimates are based on annual income and thus represent a snapshot of the number of people in the coverage gap at a given point in time. Over the course of the year, a larger number of people are likely to move and out of the coverage gap as their income fluctuates.

Endnotes

[1] U.S. Department of Health and Human Services, Office of The Assistant Secretary for Planning and Evaluation, 2015 Poverty Guidelines. Available at: http://aspe.hhs.gov/2015-poverty-guidelines.

[2] Kaiser Family Foundation State Health Facts Online. *Medicaid/CHIP Upper Income Eligibility Limits for Children, 2000-2015*. Available at: http://kff.org/medicaid/state-indicator/medicaidchip-upper-income-eligibility-limits-for-children-2000-2015/.

[3] U.S. Department of Health and Human Services, Office of The Assistant Secretary for Planning and Evaluation, 2014 Poverty Guidelines. Available at: http://aspe.hhs.gov/2014-poverty-guidelines

[4] Tax credit eligibility in 2015 is based on 2014 poverty guidelines. In addition to the premium tax credits, the federal government also makes available cost-sharing subsidies to reduce what people with incomes between 100% and 250% of poverty have to pay out-of-pocket to access health services. The cost-sharing subsidies are also available on a sliding scale based on income.

[5] Includes individuals in Minnesota and New York who are eligible for coverage through the Basic Health Plan. See table notes for more detail.

[6] Garfield, R. and K. Young. January 2015. *Adults who Remained Uninsured at the End of 2014*. (Washington, DC: Kaiser Family Foundation). Available at: http://kff.org/health-reform/issue-brief/adults-who-remained-uninsured-at-the-end-of-2014/.

[7] Ibid.

[8] Artiga, S. February 2013. *Immigration Reform and Access to Health Coverage: Key Issues to Consider*. (Washington, DC: Kaiser Family Foundation). Available at: http://kff.org/uninsured/issue-brief/immigration-reform-and-access-to-health-coverage-key-issues-to-consider/

[9] State Health Access Data Assistance Center. 2013. "State Estimates of the Low-income Uninsured Not Eligible for the ACA Medicaid Expansion." Issue Brief #35. Minneapolis, MN: University of Minnesota. Available at: http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2013/rwjf404825

[10] Van Hook, J., Bachmeier, J., Coffman, D., and Harel, O. 2015. "Can We Spin Straw into Gold? An Evaluation of Immigrant Legal Status Imputation Approaches" *Demography*. 52(1):329-54.

[11] Based on state-reported eligibility levels as of January 1, 2015. Eligibility levels are updated to reflect state implementation of the Medicaid expansion as of September 2015 and 2015 Federal Poverty Levels, but may not reflect other eligibility policy changes since January 2015. The Kaiser Family Foundation State Health Facts. Data Source: Kaiser Commission on Medicaid and the Uninsured with the Georgetown University Center for Children and Families: Modern Era Medicaid: Findings from a 50-State Survey of Eligibility, Enrollment, Renewal, and Cost-Sharing Policies in Medicaid and CHIP as of January 2015, Kaiser Family Foundation, January 20, 2015.

[12] Non-MAGI pathways for nonelderly adults include disability-related pathways, such as SSI beneficiary; Qualified Severely Impaired Individuals; Working Disabled; and Medically Needy. We are unable to assess disability status in the CPS sufficiently to model eligibility under these pathways. However, previous research indicates high current participation rates among individuals with disabilities (largely due to the automatic link between SSI and Medicaid in most states, see Kenney GM, V Lynch, J Haley, and M Huntress. "Variation in Medicaid Eligibility and Participation among Adults: Implications for the Affordable Care Act." *Inquiry*. 49:231-53 (Fall 2012)), indicating that there may be a small number of eligible uninsured individuals in this group. Further, many of these pathways (with the exception of SSI, which automatically links an individual to Medicaid in most states) are optional for states, and eligibility in states not implementing the ACA expansion is limited. For example, the median income eligibility level for coverage through the Medically Needy pathway is 15% of poverty in states that are not expanding Medicaid, and most states not expanding Medicaid do not provide coverage above SSI levels for individuals with disabilities. (See: O'Mally-Watts, M and K Young. *The Medicaid Medically Needy Program: Spending and Enrollment Update*. (Washington, DC: Kaiser Family Foundation), December 2012. Available at: http://www.kff.org/medicaid/issue-brief/the-medicaid-medically-needy-program-spending-and/. And Kaiser Commission on Medicaid and the Uninsured, "Medicaid Financial Eligibility: Primary Pathways for the Elderly and People with Disabilities," February 2010. Available at: http://www.kff.org/medicaid/issue-brief/medicaid-financial-eligibility-primary-pathways-for-the-elderly-and-people-with-disabilities/.

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October 2015 | Issue Brief

Summary of HHS's Proposed Rule on Nondiscrimination in Health Programs and Activities

Elizabeth Cornachione, MaryBeth Musumeci, and Samantha Artiga

Executive Summary

On September 8, 2015, the Department of Health and Human Services (HHS) published a proposed rule to implement Section 1557 of the Affordable Care Act (ACA), which prohibits discrimination in health coverage and care based on race, color, national origin, age, disability, and sex. In the preamble to the proposed rule, HHS emphasizes the importance of Section 1557 for achieving the ACA's goals of expanding health care and insurance, noting that discrimination within health programs, insurance, and care can contribute to poor health outcomes or coverage, increase health disparities among underserved communities, and negatively impact the distribution of health care resources.

While Section 1557 and the proposed rule coordinate and incorporate existing federal laws, regulations, and policy for non-discrimination in health coverage and care, they also include new protections and provisions. Notably, Section 1557 is the first federal civil rights law to prohibit discrimination on the basis of sex in health care. Moreover, the proposed rule extends the definition of sex discrimination to include discrimination on the basis of gender identity (but does not explicitly include sexual orientation). In addition, the proposed rule establishes regulations related to the provision of language assistance services based on long-standing HHS policy guidance.

This issue brief summarizes key provisions of the proposed rule, including:

- Who is subject to the non-discrimination provisions;
- Protections against discrimination based on sex;
- Access for individuals with limited English proficiency (LEP);
- Protections against discrimination based on disability;
- Prohibitions against discrimination in health coverage; and
- Compliance and enforcement.

The 60 day public comment period for the proposed rule closes on November 9, 2015. A final rule will be issued based on HHS' consideration of the public comments and would be effective 60 days after it is published, and provide an additional tool to help prevent and remediate discrimination in health programs and activities.

Introduction

On September 8, 2015, HHS proposed regulations to implement Section 1557 of the ACA.[1] Section 1557 prohibits certain entities that administer health programs and activities from excluding an individual from participation, denying program benefits, or discriminating against an individual based on his or her race, color, national origin, sex, age or disability.[2] While Section 1557 has been in effect since the enactment of the ACA, this proposed rule marks the first time HHS has issued implementing guidance. In the preamble to the proposed rule, HHS emphasizes the importance of Section 1557 to achieving the ACA's overarching goal of expanding access to health care and insurance for all individuals, noting that discrimination within health programs can contribute to poor and inadequate health outcomes or coverage, exacerbate existing health disparities in underserved communities, and lead to insufficient and ineffective distribution of health care resources.[3]

The intent of Section 1557 is to coordinate existing federal laws, regulations, and policy for non-discrimination as they apply to health coverage and care and to extend sex discrimination protections to health programs and activities. Specifically, the proposed rule incorporates the existing anti-discrimination tenants of Title VI (race, color and national origin), the Age Discrimination Act, and Section 504 (disability) as they apply to health care. It also extends the sex discrimination protections of Title IX, which only apply to educational programs, to health care. As such, it is the first federal civil rights law to prohibit discrimination on the basis of sex in health care. Moreover, the proposed rule extends the definition of sex discrimination to include discrimination on the basis of gender identity (but does not explicitly include sexual orientation). In addition, the proposed rule establishes regulations related to the provision of language assistance services based on long-standing HHS policy guidance. This issue brief summarizes key provisions of the proposed rule.

Key Provisions of the Proposed Rule

WHO IS SUBJECT TO SECTION 1557'S NON- DISCRIMINATION PROVISIONS

The proposed rule applies to health programs and activities that receive Federal financial assistance from HHS; health programs and activities administered by HHS, including the Federally-facilitated Marketplace; and State-based Marketplaces established under the ACA.[4] Text Box 1 provides examples of the types of entities subject to Section 1557. While Section 1557 applies more broadly to all health programs and activities that receive federal funding through any agency, HHS limits its proposed rule to the programs that it has authority to enforce.[5] HHS encourages other federal agencies to adopt the standards from its proposed rule when applying Section 1557 to the health programs and activities that they administer.[6]

The proposed rule defines health programs and activities to include all operations of an entity that is principally engaged in the provision or administration of health-related services or health-related insurance coverage.[7] Health programs and activities also include providing assistance obtaining health-related services or health-related insurance coverage and health education and research programs.[8] The proposed rule reiterates that federal law already prohibits discrimination in research that receives federal funds as well as in research at universities. This rule would extend the nondiscrimination protections to any research that is conducted within HHS as well as non-educational institutions. In the

preamble, HHS recognizes that research projects are often limited in scope, and therefore, research protocol criteria that target or exclude certain groups are warranted when justified for subjects' health or safety, the scientific study design, or the research purpose.[9] HHS seeks comment on which health programs and activities should be covered by the rule.[10]

Box 1: Examples of the Types of Entities Subject to Section 1557 and the Proposed Rule

- Health care providers, such as physicians, hospitals, community health centers, nursing facilities, home health agencies, clinical laboratories, residential or community-based treatment facilities, intermediate care facilities for people with intellectual/developmental disabilities, hospices, organ procurement centers, and physician's practices
- Health related schools and education and research programs
- State agencies, such as Medicaid, CHIP, and public health
- Health insurance issuers
- Navigators
- HHS programs, such as CMS, HRSA, CDC, IHS, SAMHSA, and the Federally-facilitated Marketplace
- State-based Marketplaces
- Employers offering employee health benefit programs (in certain circumstances, see below)

Source: Proposed 45 C.F.R. §§ 92.4, 92.208; 80 *Fed. Reg.* 54175, 54189, 54194-54195.

The proposed rule clarifies that Federal financial assistance includes not only funding received directly by covered entities but also premium and cost-sharing subsidies provided to individuals for coverage through the Federally-facilitated or State-based Marketplaces. [11] As such, the rule applies to insurance carriers that offer plans through these Marketplaces. Moreover, the preamble clarifies that Section 1557 applies to all plans offered by these carriers, not just those available through the Marketplaces.[12]

Under the proposed rule, Section 1557 applies to employee health programs, such as health and long-term care insurance, wellness programs, and employer-provided health clinics in three circumstances.[13] These circumstances include the following: (1) If an employer is principally engaged in providing or administering health services or coverage and receives Federal financial assistance, Section 1557 applies to the employer's health programs and services as well as its employee health benefit program.[14] For example, a hospital must comply with Section 1557 not only in providing health services to patients but also in providing health benefits to its employees.[15] Similarly, a state Medicaid agency must comply with Section 1557 not only in providing Medicaid benefits but also in providing health benefits to state Medicaid employees. By contrast, a state transportation department would not be subject to Section 1557 for its employee health benefit program (assuming it is not engaged in other health programs or activities).[16] (2) Section 1557 applies to an employee health benefit program if an employer receives Federal financial assistance for the primary purpose of funding the employee health benefits. [17] In these cases, Section 1557 would apply regardless of whether the employer is engaged in other health programs or activities. (3) Section 1557 applies when an employer is not principally engaged in providing or administering health services or coverage but operates an employee health program or activity, other than an employee health benefit program, that receives Federal financial

assistance. [18] In these cases, Section 1557 applies only to the employee health program or activity. For example, if an employer receives Federal financial assistance for an employee wellness program and is not engaged in other health programs or activities, the employer must comply with Section 1557 only with regard to the wellness program.

PROTECTIONS AGAINST DISCRIMINATION BASED ON SEX

Section 1557 and its proposed regulations, for the first time, extend protections against discrimination based on sex to health coverage and care. Under the proposed rule, covered entities must provide individuals equal access to health programs and activities without discrimination based on sex, including pregnancy, false pregnancy, termination of pregnancy, recovery from childbirth or related medical conditions, and sex stereotyping which could be an important protection for Lesbian, Gay, Bisexual, and Transgender individuals, among others. [19]

Moreover, the proposed rule extends the definition of sex discrimination to include discrimination based on gender identity for the first time in the health care context. [20] In the preamble to the proposed rule, HHS explains that its recognition of gender identity discrimination as part of sex discrimination is consistent with the interpretations of other federal agencies and courts. [21] The proposed rule does not explicitly extend Section 1557 protections to cover sexual orientation. However, HHS also explains that it supports including sexual orientation discrimination as part of sex discrimination in implementing Section 1557, while acknowledging that current caselaw is mixed about whether existing Federal laws that prohibit sex discrimination also prohibit discrimination based on sexual orientation. HHS notes that the Equal Employment Opportunity Commission recently found that discrimination on the basis of sexual orientation necessarily involves sex-based considerations and therefore is covered under existing law and seeks comment about the scope of the definition of sex discrimination under the proposed rule. [22]

HHS seeks comment on whether the rule should include specific exemptions from its sex discrimination requirements. For example, HHS seeks comment about whether certain sex-based distinctions in health programs and activities should be permitted, such as exceptions to account for a women's health clinic or a counseling program limited to male domestic violence victims. [23] HHS also seeks comment on whether exemptions for sincerely held religious beliefs available in other federal laws are sufficient or if additional exemptions should be included in the proposed rule to accommodate sincerely held religious beliefs. [24] At the same time, HHS requests comment on any health care consequences that may result from additional exemptions in this area, given the ACA's purpose of ensuring that health care services are available broadly and in a non-discriminatory manner. [25] HHS notes that Section 1557 would not displace the religious belief protections offered by existing laws, including provider conscience laws, the Religious Freedom Restoration Act, the ACA provisions regarding abortion services, and the ACA's preventive health services regulations. [26]

ACCESS FOR INDIVIDUALS WITH LIMITED ENGLISH PROFICIENCY

Under the proposed rule, covered entities are required to take reasonable steps to provide meaningful access to each individual with LEP that they serve or encounter in their health

programs and activities.[27] The proposed rule incorporates existing Title VI regulations and HHS's LEP policy guidance and outlines several specific requirements related to provision of language assistance services.

Under the proposed rule, covered entities must provide free, accurate, and timely language assistance services; protect the privacy and independence of an individual with LEP; and offer a qualified interpreter when reasonable.[28] Language assistance services include oral language assistance, written translation, and taglines.[29] The rule also specifies that individuals with LEP are not required to accept language assistance services.[30]

The proposed rule defines who may be considered a qualified interpreter and outlines specific requirements related to the provision of interpreter services. The proposed rule specifies that a qualified interpreter is an individual who adheres to generally accepted interpreter ethics principles; is able to interpret accurately and impartially, both receptively and expressively; and has demonstrated proficiency in and also has an above average familiarity with speaking or understanding both spoken English and at least one other spoken language.[31] Under the proposed rule, an entity may not require an individual with LEP to provide his or her own interpreter.[32] Moreover, the entity cannot rely on an adult accompanying the individual with LEP to interpret, except in emergency situations or when the individual specifically requests the adult to provide those services, the adult agrees to provide the assistance, and reliance on the adult is appropriate for the circumstances.[33] Similarly, the entity may not rely on a minor child to interpret except in an emergency when no qualified interpreter is immediately available.[34] HHS also considered an approach that would require all covered entities to have capacity to provide telephonic oral interpretation services in at least 150 languages. It seeks comment on which oral interpretation services, if any, should be required under the proposed rule.[35]

The proposed rule notes that when assessing an entity's compliance with these requirements, HHS will account for the nature and importance of the health program or activity and the information that is being communicated. Consideration also will be given on a case by case basis to other factors such as the length and complexity of the communication, the context of the communication, the prevalence of the language spoken by the individual among those served by the entity, the resources available to the entity, and the cost of language assistance services.[36]

HHS seeks comment on several issues related to the provision of language assistance services. First, it seeks comment on whether certain categories of covered entities should have enhanced obligations to provide language assistance services, and if so, how those categories should be defined. It also seeks comment on whether thresholds should be used to determine the minimum number of languages for which covered entities would be required to provide language assistance services, and if so, to what geographic or service areas those thresholds should apply. In addition, HHS seeks comment on whether entities should be required to be systematically prepared to provide language assistance services through advance planning activities, such as identifying resources to provide language assistance services, annually assessing the prevalent languages of individuals served, establishing policies for staff to use when encountering individuals with LEP, and monitoring and assessing the quality of language assistance services provided.[37]

Protections Against Discrimination Based on Disability

Under the proposed rule, covered entities must make reasonable modifications in policies, practices, and procedures to avoid disability-based discrimination, unless doing so would fundamentally alter the nature of the health program or activity.[38] The proposed rule incorporates existing federal protections against disability-based discrimination from Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA). Under Section 1557, these standards apply to the health programs and activities of HHS and state and local governments and private entities that receive Federal financial assistance.

Covered entities must ensure effective communication with people with disabilities.[39] To the extent that the ADA effective communication rules differ between Title II (which applies to state and local government) and Title III (which applies to places of public accommodation), HHS proposes adopting the Title II rules for all entities subject to Section 1557. This requires Section 1557 covered entities to give "primary consideration" to the person with a disability's choice of auxiliary aid or service.[40] Auxiliary aids and services can include, as appropriate, qualified interpreters, a variety of assistive technology devices, and the provision of materials in alternative formats.[41]

Buildings and facilities where health programs and activities are conducted must be designed, constructed, and altered in a way that is readily accessible to and useable by people with disabilities. Specifically, HHS adopts the 2010 ADA Standards for Accessible Design for construction or alternation beginning 18 months or later from the date that the final rules are published for facilities of covered entities that receive Federal funding and State-based Marketplaces.[42]

Covered entities must make electronic and information technology in health programs and activities accessible to people with disabilities, unless doing so would create an undue financial or administrative burden or fundamentally alter the nature of the health program or activity.[43] When providing an accessible electronic format creates an undue burden or fundamental alteration, covered entities still must provide information in another format that does not create an undue burden or fundamental alternation but that does ensure, to the maximum extent possible, that people with disabilities receive the benefits or services of the health program or activity provided through electronic or information technology.[44] The proposed rule defines electronic and information technology to include items such as telephones, information kiosks and transaction machines, internet sites, multimedia, and office equipment such as copiers and fax machines.[45] HHS seeks comment on its decision to apply Section 1557's accessibility rules to all health program electronic and information technology, rather than limiting the rules to covered entities' websites, in light of existing law and the importance of technology in accessing health care and coverage.[46]

HHS notes that Section 1557's prohibition against disability-based discrimination in health programs and activities also extends to medical equipment but is deferring setting accessibility standards in this area until the U.S. Access Board releases its standards.[47] HHS requests comment on its proposal to issue regulations or policy requiring Section 1557 covered entities to comply with the forthcoming Access Board standards for accessible medical equipment.

PROHIBITIONS AGAINST DISCRIMINATION IN HEALTH COVERAGE

The proposed rule outlines several protections against discrimination in health insurance coverage determinations and practices. Under these protections, covered entities may not take the following actions on the basis of race, color, national origin, sex, age or disability:

- Deny, limit, or refuse to issue or renew a health insurance policy;

- Deny or limit coverage for a health insurance claim;

- Impose additional cost sharing or other limitations or restrictions on access to covered health care services;[48] or

- Employ discriminatory marketing practices or insurance benefit designs.[49]

The proposed rule maintains that while health insurers cannot have coverage policies that operate in a discriminatory manner, they still may apply medical necessity rules when determining covered benefits.[50] HHS also notes in the preamble that Section 1557 does not require insurers to cover any particular services.[51]

While the proposed rule states that covered entities may not employ discriminatory benefit designs, it is silent on whether issuers may place all drugs to treat a single medical condition on the plan's highest cost-sharing tier. This practice is the basis of an administrative complaint filed with the HHS Office for Civil Rights (OCR, see Box 2). Separately, in its 2016 Letter to Issuers and Notice of Benefit and Payment Parameters, where HHS lays out its expectations for issuers in the Federally-facilitated Marketplace, HHS identifies this practice as an example of potential discrimination.[52]

Box 2: Case Study: A Challenge Under Section 1557

On May 29, 2014, The AIDS Institute, and the National Health Law Program (NHeLP), filed an administrative complaint with the HHS OCR.[53] The complaint alleged that four Florida health insurance insurers operating on the Federally-facilitated Marketplace violated Section 1557's prohibition against discriminatory plan benefit design when they placed all drugs to treat HIV on the highest cost-sharing tier, sometimes with significant deductibles, thereby discouraging people with HIV/AIDS from selecting those insurers' plans. OCR has not yet officially acted on the complaint; however, the issuers have reached individual agreements with the complainants to remedy HIV drug formulary placement.

The proposed rule includes specific coverage protections for transgender individuals. While the rule generally requires that covered entities treat individuals consistent with their gender identity, as described above, it specifies a limited exception. The exception prohibits entities from denying or limiting health services (or imposing additional cost-sharing on services) that are ordinarily or exclusively available to individuals of one sex or gender based on the fact that the individual's sex assigned at birth, gender identity, or gender recorded in a medical or health insurance plan record differs from the one to which such health services are ordinarily or exclusively available.[54] For example, a covered entity may not deny an individual treatment for ovarian cancer where the individual could benefit medically from the treatment, based on the individual's identification as a transgender male.[55] In addition, under the proposed rule, an insurance plan may not categorically or automatically exclude or limit coverage for all health services related to gender transition or

otherwise deny or limit coverage or deny a claim for specific health services related to gender transition, if such a policy results in discrimination against the individual seeking services.[56] HHS notes, however, that these provisions do not affirmatively require covered entities to cover any particular procedure or treatment for transition-related care.[57]

COMPLIANCE WITH SECTION 1557'S NON- DISCRIMINATION PROVISIONS

Each entity applying for federal assistance must submit assurance of compliance with 1557.[58] Assurances will also be required by each Marketplace issuer and states seeking approval to operate a State-based Marketplace.[59]

Entities covered by the proposed rule must post a notice regarding their non-discrimination policies. These notices must inform individuals about the bases of discrimination prohibited under Section 1557, the availability of free and timely auxiliary aids and services and language assistance services, how to access those services, contact information for the entity's employee responsible for Section 1557 compliance, the entity's Section 1557 grievance procedures, and HHS OCR complaint procedures.[60] Notices must be available to beneficiaries, enrollees, applicants, and members of the public.[61] They must be printed in a conspicuously visible font and included in significant communications (such as handbooks and outreach publications), in conspicuous physical locations where the entity interacts with the public, and in a conspicuous location on the covered entity's website homepage.[62]

Covered entities are required to post the notice in English and taglines for the notice in the top 15 languages spoken by individuals with LEP nationally,[63] and may choose to post the notice in other non-English languages.[64] HHS will make available sample notices in English and sample notices and taglines in the top 15 language spoken by individuals with LEP nationally.[65] The proposed rule includes sample notices and taglines for public comment.[66] HHS also seeks comment on alternate methodologies for determining how many languages into which the notice should be translated and whether this methodology should be applied at a national, state, or local level.[67]

Each covered entity that employs at least 15 people is required to adopt a grievance procedure that incorporates appropriate due process standards and provides prompt and equitable resolution of grievances under Section 1557.[68] HHS and covered entities with more than 15 employees also must designate at least one employee to coordinate their efforts to carry out their responsibilities under Section 1557, including the investigation of grievances.[69] The HHS OCR will serve as the responsible employee for Section 1557 compliance in HHS programs and activities and the Federally-facilitated Marketplace.[70] The preamble indicates that covered entities may use the same grievance procedures and individuals as used to comply with Section 504 and Title IX if their scope is broadened to include all bases of discrimination prohibited by Section 1557.[71] To ensure compliance with Section 1557, HHS will provide covered entities with training materials on key provisions of the rule.[72] HHS seeks comment on whether the rule should require all covered entities to designate grievance procedures and a responsible employee, not just entities with more than 15 employees.[73]

ENFORCEMENT OF SECTION 1557'S NON- DISCRIMINATION PROVISIONS

The proposed rule requires covered entities to take remedial action as required by the HHS OCR Director if they are found to have discriminated on any basis prohibited by Section 1557.[74] If discrimination is not found, covered entities may also take voluntary actions to improve operations.[75] The HHS OCR can enforce Section 1557 through informal mediation, reducing or eliminating a covered entity's Federal financial assistance, or referring matters to the Department of Justice for litigation.[76] The proposed rule also provides that private individuals and entities can sue in federal court to challenge violations of Section 1557.[77]

The proposed rule incorporates existing enforcement mechanisms in other federal laws for violations of Section 1557.[78] For covered entities that receive Federal financial assistance or that are State-based Marketplaces, the existing Title VI enforcement process will apply to Section 1557 claims based on race, color, national origin, sex, and disability, and the existing Age Discrimination Act process will apply to Section 1557 claims based on age.[79] These procedures cover issues such as keeping records, submitting OCR compliance reports, conducting reviews and complaint investigations, and providing technical assistance and guidance.[80] For HHS health programs and activities, including the Federally-facilitated Marketplace, the Section 504 enforcement process will apply to claims alleging discrimination under any of the bases prohibited by Section 1557.[81] HHS also proposes that it will allow OCR access to all relevant information to investigate complaints and determine compliance with Section 1557[82] and that HHS will not retaliate against individuals that seek protection under Section 1557.[83]

Section 1557 does not invalidate or limit other existing anti-discrimination laws.[84] Therefore, entities may be subject to independent civil right obligations separate from Section 1557, including the Americans with Disabilities Act, Architectural Barriers Act and Section 508 for persons with disabilities. Any state or local laws that provide additional protections against discrimination also still apply.[85]

Looking Ahead

The proposed rule to implement the ACA's Section 1557 nondiscrimination protections coordinates existing federal laws, regulations, and policy for non-discrimination on the basis of race, color, national origin, age, and disability as they apply to health coverage and care. Section 1557 also extends sex discrimination protections to health care programs and activities and includes gender identity as a prohibited basis of discrimination. It does not, however, explicitly include discrimination based on sexual orientation. The proposed rule codifies HHS's long-standing policy guidance on language assistance services for individuals with LEP. It also incorporates existing provisions of Section 504 and the ADA to prohibit disability-based discrimination in health programs and activities, although it defers setting standards for accessible medical equipment pending forthcoming standards from the Access Board. The rule also prohibits insurers from using discriminatory benefit designs, although it does not specifically address the placement of all drugs to treat a single medical condition on the highest cost-sharing tier, the subject of a recent administrative complaint that is pending with OCR. The 60 day public comment period for the proposed rule closes on November 9, 2015. A final rule will be issued based on HHS' consideration of the public comments. The final rule would be effective 60 days after it is published,[86] and provide an additional tool to help prevent and remediate discrimination in health programs and activities.

Endnotes

[1] 80 *Fed. Reg.* 54172-54221 (Sept. 8, 2015), available at http://www.gpo.gov/fdsys/pkg/FR-2015-09-08/pdf/2015-22043.pdf.

[2] 42 U.S.C. § 18116; proposed 45 C.F.R. § 92.101. In addition to prohibiting discrimination based on an individual's own race, color, national origin, age, disability, or sex, Section 1557 also prohibits discrimination against an individual known or believed to have a relationship or association with someone else based on that other person's race, color, national origin, age, disability, or sex. Proposed 45 C.F.R. § 92.209. For example, a primary care physician could not refuse to accept a new patient based on the disability-status of one of the patient's family members. 80 *Fed. Reg.* 54191.

[3] 80 *Fed. Reg.* 54194 (internal citations omitted).

[4] Proposed 45 C.F.R. § 92.4.

[5] Proposed 45 C.F.R. § § 92.1, 92.2(a).

[6] 80 *Fed. Reg.* 54173, n.2.

[7] Proposed 45 C.F.R. § 92.4.

[8] *Id.*

[9] 80 *Fed. Reg.* 54175.

[10] *Id.*

[11] Proposed 45 C.F.R. § 92.4. Consistent with the HHS Office for Civil Rights' enforcement of other civil rights authorities, the definition of Federal financial assistance does not include Medicare Part B payments. 80 *Fed. Reg.* 54174.

[12] 80 *Fed. Reg.* 54189.

[13] Proposed 45 C.F.R. § 92.4.

[14] Proposed 45 C.F.R. § 92.208(a).

[15] 80 *Fed. Reg.* 54190.

[16] 80 *Fed. Reg.* 54191.

[17] Proposed 45 C.F.R. § 92.208(b).

[18] Proposed 45 C.F.R. § 92.208(c).

[19] Proposed 45 C.F.R. § § 92.4 92.206.

[20] Proposed 45 C.F.R. § 92.206.

[21] 80 *Fed. Reg.* 54176.

[22] 80 *Fed. Reg.* 54176-54177.

[23] 80 *Fed. Reg.* 54181.

[24] 80 *Fed. Reg.* 54173.

[25] *Id.*

[26] *Id.*

[27] Proposed 45 C.F.R. §92.201(a).

[28] Proposed 45 C.F.R. § 92.201(c) and (d).

[29] Proposed 45 C.F.R. § 92.4.

[30] Proposed 45 C.F.R § 92.201(f).

[31] Proposed 45 C.F.R. § 92.4.

[32] Proposed 45 C.F.R. § 92.201(e)(1).

[33] Proposed 45 C.F.R § 92.201(e)(2).

[34] Proposed 45 C.F.R. § 92.201 (e)(3).

[35] 80 *Fed. Reg.* 54184.

[36] Proposed 45 C.F.R. § 92.201(b).

[37] 80 *Fed. Reg.* 54185-54186.

[38] Proposed 45 C.F.R. § 92.205.

[39] Proposed 45 C.F.R. § 92.202.

[40] 80 *Fed. Reg.* 54186.

[41] Proposed 45 C.F.R. § 92.4.

[42] Proposed 45 C.F.R. § 92.203(a). Construction or alteration that began before 18 months from the date of the final rules is deemed to comply if it meets the 2010 Standards, the 1991 Standards, or the Uniform Federal Accessibility Standards. Proposed 45 C.F.R. § 92.203(b). Construction or alternation to buildings used by HHS must comply with the Architectural Barriers Act. Proposed 45 C.F.R. § 92.203(c).

[43] Proposed 45 C.F.R. § 92.204(a). Consistent with the ADA and Section 504, HHS notes that when determining whether an action is an undue burden, a covered entity must consider all resources available for use in the health program or activity's funding or operation. 80 *Fed. Reg.* 54188. HHS decided to adopt a general accessibility performance standard, which will be informed by future rule-making by the U.S. Access Board and Department of Justice, rather than requiring compliance with a specific set of standards such as Section 508 or the Web Content Accessibility Guidelines. 80 *Fed. Reg.* 54188.

[44] Proposed 45 C.F.R. § 92.204(a).

[45] Proposed 45 C.F.R. § 92.4.

[46] 80 *Fed. Reg.* 54187.

[47] *Id.*

[48] Proposed 45 C.F.R § 92.207(b)(1).

[49] Proposed 45 C.F.R. § 92.207(b)(2).

[50] Proposed 45 C.F.R. § 92.207(d).

[51] 80 *Fed. Reg.* 54190.

[52] Center for Consumer Information and Insurance Oversight and Centers for Medicare and Medicaid Services, Final 2016 Letter to Issuers in the Federally-facilitated Marketplace (Feb. 20, 2016), available at https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2016_Letter_to_Issuers_2_20_2015.pdf; 80 *Fed. Reg.* 10749-10877 (Feb. 27, 2015), available at http://www.gpo.gov/fdsys/pkg/FR-2015-02-27/pdf/2015-03751.pdf.

[53] Jane Perkins and Wayne Turner, *NHeLP and The AIDS Institute Complaint to HHS Re HIV/AIDS Discrimination by Florida Insurers* (May 29, 2014), available at http://www.healthlaw.org/publications/browse-all-publications/HHS-HIV-Complaint#.Vg7Zx03bKUk.

[54] Proposed 45 C.F.R. § § 92.206, 92.207(b)(3).

[55] 80 *Fed. Reg.* 54188.

[56] Proposed 45 C.F.R. § 92.207 (b)(4) and (5).

[57] 80 *Fed. Reg.* 54189.

[58] Proposed 45 C.F.R. § 92.5(a).

[59] *Id.*

[60] Proposed 45 C.F.R. § 92.8(a).

[61] *Id.*

[62] Proposed 45 C.F.R. § 92.8(f).

[63] HHS notes that this will reach 90 percent of people with LEP nationally. 80 *Fed. Reg.* 54179.

[64] Proposed 45 C.F.R. § 92.8(b), (d).

[65] Proposed 45 C.F.R. § 92.8(c) and (e).

[66] Proposed 45 C.F.R. Part 92 Appendix A and B.

[67] 80 *Fed. Reg.* 54185-54186.

[68] Proposed 45 C.F.R. § 92.7(b).

[69] Proposed 45 C.F.R. § 92.7(a).

[70] *Id.*

[71] 80 *Fed. Reg.* 54178.

[72] 80 *Fed. Reg.* 54200.

[73] 80 *Fed. Reg.* 54178.

[74] Proposed 45 C.F.R. § 92.6(a).

[75] Proposed 45 C.F.R. § 92.6(b).

[76] 80 *Fed. Reg.* 54191-54192.

[77] Proposed 45 C.F.R. § 92.302(c).

[78] Proposed 45 C.F.R. § 92.301.

[79] Proposed 45 C.F.R. § 92.302(a), (b).

[80] 80 *Fed. Reg.* 54191-54192.

[81] Proposed 45 C.F.R. § 92.303.

[82] Proposed 45 C.F.R. § 92.303(c).

[83] Proposed 45 C.F.R. § 92.303(d).

[84] Proposed 45 C.F.R. § 92.3(b).

[85] *Id.*

[86] Proposed 45 C.F.R. § 92.1.

ACA Excise Tax: Cutting Family Budgets, Not Health Care Budgets

By Tevi D. Troy and D. Mark Wilson

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Executive Summary

Under the Affordable Care Act (ACA), in 2018, an excise tax on high-value employer-provided health plans, the so-called "Cadillac tax," takes effect. Even before 2018, though, the excise tax is already driving many employers to fundamentally reassess their health care plans. While the tax was intended to reduce health care spending, its impact in the real world is being felt by workers who are seeing the value of their health care plans reduced.

Given the significant debate around the potential reform and repeal of the health care excise tax as the 2016 presidential election nears, the American Health Policy Institute conducted two new surveys of large employers, in June and September of 2015, to identify how many of them will be impacted by the excise tax and what steps companies are planning to take to minimize their exposure to the tax.[1] The new surveys found that the excise tax is already having, and will continue to have a significant impact:

- Almost 90 percent of large employers are taking steps to try to prevent their company from having a plan that triggers the excise tax in 2018;
- Over 30 percent of large employers said they would have at least one plan impacted by the excise tax in 2018;
    - Almost half of the employers that did not have plans hitting the excise tax in 2018 said they would have a plan that would be impacted by 2023;
- Almost 19 percent of large employers were already curtailing or eliminating employee contributions to flexible spending accounts (FSAs) in order to avoid triggering the excise tax;
- Almost 13 percent were already curtailing or eliminating employee contributions to health savings accounts (HSAs);
- Among employers who are going to reduce the values of their plans as a result of the excise tax, 71 percent of employers said that they probably would not provide a corresponding wage increase; 16 percent said they would.

Moreover, as predicted by the Congressional Budget Office (CBO), other surveys show 38 percent of employers plan to reduce the value of their health benefits in 2016 to reduce their exposure to the excise tax.[2] According to the Kaiser 2015 Employer Health Benefits Survey, 64 percent of large employers (200 or more employees) have increased cost sharing, 18 percent have increased incentives to use less costly providers, and 10 percent have reduced the scope of covered health services in order to reduce their exposure to the tax.[3]

As these numbers show, the excise tax continues to be an important health policy issue and is going to impose real costs on both employees and employers alike. Some health care policy theorists say that the excise tax will curtail health care expenditures. Health care policy realists understand that solving the excise tax facing many employers as well as making changes to future payment policies are necessary to stave off a potential collapse of the employer-sponsored health insurance—a system that 175 million Americans rely on for health care. As this paper demonstrates, it would seem prudent for policymakers to act in response to the realities of imposition of the excise tax.

The ACA Excise Tax Provision

Under the Affordable Care Act (ACA), if the aggregate cost of employer-sponsored health insurance coverage for an employee or a retiree (including surviving spouses) exceeds $10,200 for individual coverage and $27,500 for family coverage, a non-deductible 40 percent excise tax is applied to the amount of the employee benefit that exceeds the tax threshold.[4] The tax is scheduled to go into effect in 2018. In 2019, the threshold amounts for the excise tax are increased by the Consumer Price Index (CPI) plus one percentage point. In 2020 and thereafter, the threshold amounts are indexed by just the CPI.

It is important to remember that the excise tax does not just apply to the portion of premiums paid by employers. The aggregate cost of the employee benefit is defined quite broadly, including employer-paid premiums to be sure, but also tax-free employee premium contributions, reimbursements under a flexible spending account (FSA) for medical expenses, health reimbursement arrangements (HRAs), employer contributions to a health savings account (HSA), and on-site medical clinics that offer more than a *de minimis* amount of medical care to employees.

How Many Employers Will Be Impacted By The Tax?

Several recent reports show that a large number of employer health care plans will be impacted by the excise tax in 2018, and that number will grow significantly over time. In June 2015, the American Health Policy Institute confidentially surveyed members of the HR Policy Association to identify how many will be impacted by the excise tax and what steps they are planning to take to minimize their exposure to the tax. The survey found that the tax would have wide ranging effects on employer nationwide:

- Over 30 percent said they would have at least one plan impacted by the excise tax in 2018;

- Almost half of the employers that did not have plans hitting the excise tax in 2018 said they would have a plan that would be impacted by 2023; and

- Almost 90 percent of large employers are taking steps to try to prevent their company from having a plan that triggers the excise tax in 2018.[5]

The Institute's survey results are consistent with other surveys that found 31 of employers would be impacted in 2018,[6] and a recent survey of large employers by the National Business Group on Health (NBGH) that found 48 percent of large employers expect one of their plans to hit the tax threshold in 2018 *if no changes were made to their plan.*[7] The NBGH survey also found that among large employers that will be able to delay the impact of the tax by making plan design changes, the median delay is only 3 years for their first plan to hit the tax, and that even with plan design changes, 28 percent of large employers say they will still have one plan that is impacted by the tax in 2018.[8]

As the Institute's November 2014 study shows, over time, more and more employer plans will be impacted by the excise tax because the cost of employer-sponsored health benefits typically increases faster than other prices even with careful plan management. For example, while medical care prices are currently rising at a relatively low rate (2.4 percent in 2014), they are still rising

significantly faster than all other prices (1.6 percent).[9] Because the threshold for the excise tax increases over time by the CPI and not medical inflation, by 2031, the cost of today's "average plan" will hit the threshold for the excise tax.

In this regard, the high-cost excise tax is similar to the Alternative Minimum Tax (AMT) which was originally intended to target only 155 high-income households, but now impacts 4.2 million households with incomes of $83,400 and above.[10] Because of the way the high-cost excise tax is indexed to inflation, the steady increase in health care costs will in short order cause many middle class health plan beneficiaries to be subjected to the excise tax.

What Changes Are Employers Making To Their Plans In Response To The Tax?

Congress intended the excise tax to reduce the cost, and therefore the value, of employer health care plans, and the tax is indeed is having this anticipated effect. During the ACA debate, the Joint Committee on Taxation (JCT) and CBO told Congress that both individuals and employers would seek less costly policies "through some combination of greater cost sharing (which would lower premiums directly and also lower them indirectly by leading to less use of medical services), more stringent benefit management, or coverage of fewer services."[11] This "combination" will have substantial impacts on employees' health care costs.

Because of the way the excise tax is structured, employers have an incentive to limit their employees' ability to select benefit options that have the potential to trigger the tax, such as employee contributions to FSAs that can add up to $2,700 to the value of a health plan.[12] For example, an employee with a plan that costs $9,000 in 2018 for individual coverage with no FSA option would not trigger the excise tax, while a similar employee with an FSA option that permits a payroll deduction of up to $2,700, could trigger a tax on the employer of $400 simply by exercising their option to put $2,200 into the FSA.

In September 2015, the American Health Policy Institute confidentially surveyed members of the HR Policy Association to identify how many large employers where curtailing or eliminating employee contributions to FSAs and health savings accounts in order to avoid triggering the excise tax in 2018. The survey found:

- Almost 19 percent of large employers were already curtailing or eliminating employee contributions to FSAs in order to avoid triggering the excise tax; and

- Almost 13 percent were already curtailing or eliminating employee contributions to HSAs.

Moreover, as predicted by the JCT and CBO, 38 percent of employers plan to reduce the value of their health benefits in 2016 to reduce their exposure to the excise tax.[13] According to the Kaiser 2015 Employer Health Benefits Survey, 64 percent of large employers (200 or more employees) have increased cost sharing; 18 percent have increased incentives to use less costly providers; and 10 percent have reduced the scope of covered health services.[14]

While health economists may view all of these changes as positive and necessary for reducing the nation's health care spending, employees may have a very different view. According to one recent poll, the number one concern among those with health insurance is the size of their deductible, which will likely increase as employers adjust plan values to avoid the excise tax thresholds.[15]

Employers share these affordability concerns as well, but are faced with an impending tax that leaves them no option but to reduce the value of the health care benefits they provide to their employees. Although the excise tax may have been sold as a tax on overly generous "Cadillac" health benefits, in reality it is impacting ordinary health plans that are expensive simply because they are offered in high-cost areas, or because they cover large numbers of people whose health costs are higher than average—women, older and disabled workers, and families experiencing catastrophic health events.

What Impact Will the Excise Tax Have On Wages?

The CBO and the JCT anticipate that as employers reduce the value of their health benefits they will increase wages and other forms of taxable compensation for employees: "Economic theory and evidence suggest that changes in the amounts spent by employers on untaxed fringe benefits—the largest of which is employment-based health insurance—are generally offset over time by changes in taxable wages and salaries, thereby keeping total compensation roughly unchanged."[16] Accordingly, CBO estimates that "roughly three-quarters" of the projected revenue from the excise tax will actually come from "the effects on revenues of changes in employees' taxable compensation and, to a lesser extent, in employers' deductible expenses."[17]

However, it is not clear how much employers will actually increase taxable wages as they reduce health care costs to avoid the excise tax. When the ACA was being debated in 2009, a Mercer survey of employers found that only 16 percent of respondents said they would convert their cost-savings into higher pay for workers.[18] While this might be an expected response from employers in the midst of the severest economic downturn in 30 years, the survey of employers conducted by the Institute in June 2015 found:

- 16 percent of large employers said they would increase wages to offset their reduction in health benefits as they seek to avoid triggering the excise tax;

- 13 percent said that they would pay the tax; and

- 71 percent said that they would probably not increase wages to offset their reduction in health benefits.

Over the past three years, productivity has been increasing at just 0.4 percent per year, while hourly compensation (wages and benefits) has been increasing 2.2 percent per year and consumer prices have been rising at an average rate of just 1.2 percent per year. Within this low productivity and low inflation economic environment, if health care cost increases remain relatively low, then taxable wages could rise in the long-run as the CBO and JCT predict. But wages are "sticky" in the short-run, and any wage increases may end up being invisible to employees whose higher wages will first be taxed, and then consumed by higher out-of-pocket health care costs that employees will have to bear.

Impact of ACA's "Cadillac Tax" on Wages

Will Increase Wages To Offset Reduction In Health Benefits

16%

Will Not Increase Wages To Offset Reduction In Health Benefits

71%

Employer Will Pay the Excise Tax, No Impact On Wages

13%
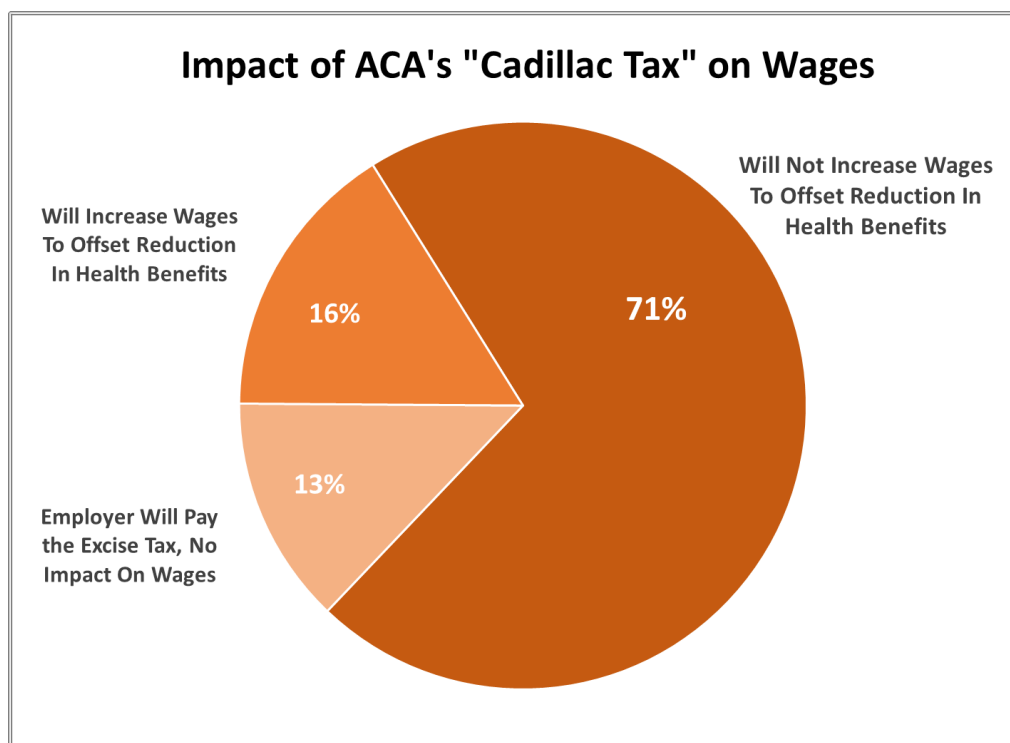
How Much Revenue Will The Excise Tax Actually Generate?

The JCT currently estimates the excise tax will generate a total of $91 billion from 2018 to 2025,[19] with about 25 percent, or about $23 billion, coming directly from employers, third party administrators (TPAs), and insurance carriers, and 75 percent, or $68 billion, coming from increased income and payroll tax revenue paid by employees.[20] The current revenue estimate is significantly lower than CBO predicted as recently as January 2015 ($149 billion), and is likely to be further reduced if employer health care costs continue to moderate.

While it is not clear how much revenue the tax will actually generate over the next ten years, a number of other needed health care reforms could off-set most, if not all, of the revenue lost from repealing the tax. For example, enacting medical malpractice reform could save $57 billion over ten years,[21] and simply cutting the amount of improper Medicare payments by a third would save $25 billion per year.[22]

Conclusion

Congress clearly intended the ACA high-cost excise tax to reduce the value of employer provided health care benefits, and the provision is having the expected impact. The threat of the excise tax on high-cost health care plans after 2017 is driving employers to fundamentally reassess their plans and reconsider what their role and approach to providing health care benefits should be in the future. These reassessments will have a real impact on employees and their families. Cost sharing, benefit reduction, and other employer strategies to reduce their excise tax exposure threaten to make employer health plans unaffordable for many moderate to low wage employees and their families.

[1] This report is an update to the Institute's initial report on the excise tax publish in November 2014 and available at: http://www.americanhealthpolicy.org/Content/documents/resources/Excise_Tax_11102014.pdf.

[2] National Business Group on Health, 2016 Health Plan Design Survey, August 2015.

[3] Kaiser Family Foundation and the Health Research & Educational Trust, 2015 Employer Health Benefits Survey, September 2015, Exhibit 14.15.

[4] In 2018, the threshold amounts could receive a one-time upward adjustment to the extent the premium for the Federal Employees' Health Benefit Plan Blue Cross/Blue Shield standard benefit option (FEHBP option) increases by more than 55 percent between 2010 and 2018. For example, if the premium for FEHBP option coverage (holding benefits under the FEBHP option constant) increases by 57 percent from 2010 to 2017, the threshold amounts for 2018 will multiplied by 1.02 percent (57 percent minus 55 percent). However, to date (2014), the FEHBP option has increased by just 14.5 percent and is unlikely to exceed the 55 percent requirement by 2018.

[5] This question was asked of HR Policy Association members in September 2015.

[6] Mercer, National Survey of Employer-Sponsored Health Plans, December 2014, available at: http://ushealthnews.mercer.com/article/282/preparing-for-the-2018-excise-tax. Another survey by the Kaiser Family Foundation found between 18 and 24 percent of large employers (1,000 or more employees), estimate their *largest plan* will exceed the excise tax threshold in 2018. See Kaiser Family Foundation and the Health Research & Educational Trust, 2015 Employer Health Benefits Survey, September 2015, available at: http://kff.org/health-costs/report/2015-employer-health-benefits-survey/. The Kaiser results are likely lower than the Institute's survey because asking about the *largest plan* will typically focus on plans that are not subject to collective bargaining agreements since just 7.4 percent of private-sector employees were covered by a union contract in 2017. Focusing on non-collectively bargained plans that generally have less generous benefits and cost less will usually result in a lower percentage of plans saying they will hit the tax in 2018.

[7] National Business Group on Health, 2016 Health Plan Design Survey, August 2015. The NBGH results presented here are likely higher than the Institute's survey because most, if not all, employers who have a plan that will hit the tax in 2018 are taking steps to significantly reduce or eliminate their tax exposure.

[8] National Business Group on Health, 2016 Health Plan Design Survey, August 2015.

[9] Bureau of Labor Statistics, U.S. city average for medical care compared to all items less medical care.

[10] American Taxpayer Relief Act of 2012 amended the AMT to adjust the income threshold to inflation.

[11] Congressional Budget Offices, Selected CBO Publications Related to Health Care Legislation 2009-2010, December 2010, pg 218.

[12] Gary Claxton and Larry Levitt, How Many Employers Could be Affected by the Cadillac Plan Tax?, Kaiser Family Foundation, August 2015.

[13] National Business Group on Health, 2016 Health Plan Design Survey, August 2015.

[14] Kaiser Family Foundation and the Health Research & Educational Trust, 2015 Employer Health Benefits Survey, September 2015, Exhibit 14.15.

[15] Drew Altman, Why Higher Drug Costs Are Consumers' Biggest Cost Worry, The Wall Street Journal, September 8, 2015, available at: http://blogs.wsj.com/washwire/2015/09/08/why-higher-drug-costs-are-consumers-biggest-cost-worry/.

[16] Congressional Budget Office, Updated Budget Projections: 2015 to 2025, March 2015.

[17] Congressional Budget Office, Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act, April 2014.

[18] Bob Herbert, "A Less Than Honest Policy," New York Times, December, 28, 2009.

[19] Joint Committee on Taxation, Estimated Revenue Effects of an Amendment in the Nature of a Substitute to the Budget Reconciliation Legislative Recommendations Relating to Repeal of Certain Excise Taxes Enacted in the Patient Protection and Affordable Care Act, JCT-130-15, September 28, 2015.

[20] Congressional Budget Office, Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act, April 2014. Dollar estimates are Institute calculations.

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THE
HAMILTON
PROJECT

Getting the Most from Marketplaces:
Smart Policies on Health Insurance Choice

Ben Handel and Jonathan Kolstad

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THE HAMILTON PROJECT

Getting the Most from Marketplaces: Smart Policies on Health Insurance Choice

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Abstract

Recent reforms to regulated U.S. health insurance markets—such as the Patient Protection and Affordable Care Act (ACA) of 2010 state exchanges and Medicare Part D—are motivated by a presumption that well-informed and active consumers will play a key role in supporting vigorous insurer competition. However, recent evidence suggests that it is difficult for many consumers to make fully informed and effective choices in these markets. The poor choices that result can lead to large financial losses for consumers, as well as for the federal and state governments who subsidize their insurance purchases. These losses manifest both from consumers choosing poor plans given those offered in the market and from the less-efficient offerings that result from less-intense insurer competition.

In this paper we propose two policies intended to improve the functioning of these markets by improving consumer choices. First, we propose that market regulators adopt and promote targeted consumer search tools that personalize choice framing and recommendations based on an individual's specific characteristics. These tools will guide consumers toward plans that they are best suited for, while giving them the flexibility to clearly assess products on dimensions that are important to them. Second, we propose a set of more proactive smart default policies designed to improve the allocation of insurance plans when the regulator has substantial confidence that a consumer is enrolled in a poor plan match. Under our proposal, when the regulator has enough information to do so, it can "default," or opt consumers enrolled in existing plans into different existing plans during open enrollment, when it is clear that such a switch presents an unambiguous and substantial increase in value. These smart default policies are stronger when regulators possess more consumer-specific information, and allow for consumers to actively choose any plan in the market if they wish. We lay out in detail the key components of each policy, discuss contextual factors that make each more or less appropriate, and note some potential limitations.

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Chapter 1. Introduction

Both of the most significant recent reforms to U.S. health care—the Patient Protection and Affordable Care Act (ACA) of 2010 and the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (known as the Medicare Modernization Act) before it—rely heavily on private provision of health insurance purchased by individuals, with some form of subsidy for many participants. A key assumption on which these reforms are founded is that active and well-informed consumers choosing health insurance plans from a large menu of options each year will support vigorous competition among insurers. However, recent evidence suggests that, in the current environment, it is difficult for those purchasing insurance to make fully informed and effective choices among the many plans offered by insurers. Consumers, state governments, and the federal government stand to lose when individuals' impaired decisions hinder market forces and limit the role of competition in lowering prices and improving quality. Estimates from existing research suggest that these losses are substantial and manifest in the form of higher health-care costs for consumers and higher government outlays through greater public support for subsidized access to health-care coverage.

In this proposal, we recommend a simple set of changes to the way in which insurance policies are purchased that can dramatically enhance consumer welfare, create incentives for innovation in the health insurance market, and lower government costs associated with providing subsidized coverage. First, we recommend that the Centers for Medicare & Medicaid Services (CMS) and state health exchange operators, which we refer to as the regulator, adopt and promote a narrower and more-targeted consumer search tool than is currently used to compare health insurance plans offered through Medicare or the health insurance exchanges. Such a tool would be forward-looking and personalized. We propose a number of design features of such a tool that would enable consumers to easily compare products in the market on the key dimensions that are important to them. To the extent that it helps avoid product obfuscation, we recommend that the regulator standardize financial elements of insurance products so that consumers do not need to learn unnecessary jargon describing the various features of health insurance plans or to perform complex calculations. On product

dimensions where differences across insurers are essential for creating discernible plans, such as the network of providers offered, the regulator should develop and clearly present metrics for consumers to actually assess the value of those product attributes. While this recommendation seems simple and straightforward, it is still not effectively implemented in most insurance exchanges so selecting an insurance plan remains a complex endeavor.

Second, we propose a set of more proactive—or smart default—policies designed to improve the allocation of insurance plans when the regulator has substantial confidence that a consumer is enrolled in a poor plan match. These smart default policies rely on (i) consumer-specific information and (ii) a trustworthy underlying model of when choice mistakes are especially large in magnitude. Under our proposal, when the regulator has enough information to do so, it can default or opt consumers enrolled in existing plans into different existing plans during open enrollment, when it is clear that such a switch presents a clear and substantial increase in value. Specifically, a default is the plan that an individual is automatically enrolled in should she take no action to switch plans. But the individual can switch to a different plan—for example, a plan in which she was previously enrolled—by making an active choice. We define and discuss the threshold for what constitutes a clear and substantial increase in value according to (i) the expected financial benefit, (ii) the worst-case financial outcome from the switch, and (iii) the condition that provider continuity is maintained for the consumer. We discuss the potential for this policy to enhance both the value that consumers obtain from the market, and the public sector savings resulting from consumers switching into cheaper plans that require fewer outlays or subsidies. We also discuss the trade-offs inherent in more-aggressive choice architecture policies like smart defaults.

While some of the policies we recommend should be implemented in all insurance exchanges, the more-aggressive choice architecture policies we suggest may be appropriate only for select exchanges with specific characteristics. We close with a discussion of when the weaker choice policies we propose (targeted information provision and recommendations) are preferable to the stronger policies (smart defaults).

Chapter 2. Challenge and Evidence: Consumer Choice in Health Insurance

There is a large existing literature documenting choice errors that, first, are costly to consumers, exchange operators, and taxpayers; and, second, could be addressed by the kind of personalized decision support we propose. Summaries of the most relevant papers are presented in table 1. We now discuss some of these studies to provide a sense of the types of mistakes consumers make and the corresponding financial implications. These papers are relevant both to the personalized recommendation policies described in this section and to the smart default policies described in the next section.

TABLE 1.

Literature on Health Insurance Choices

Studies of Consumer Choice in Health Insurance Markets

Study	Market	Key Results
Handel (2013)	Large-employer	Investigates inertia in health plan choice, and shows that in the large employer setting studied, consumers leave approximately $2,000 on the table due to inertia, on average. Many consumers remain in dominated plans, where they lose a substantial amount of money for sure in inertial choice environments. Handel finds that, if consumer inertia is reduced, adverse selection would likely increase in a marketplace with no insurer risk-adjustment transfers.
Bhargava, Loewenstein, and Sydnor (2015)	Large-employer	Studies employees who actively choose from 48 plans with a lot of flexibility to build their own plan on financial dimensions. Employees frequently choose dominated options, resulting in an average excess spending of 42 percent of annual premium. Choices do not improve over time. Lab intervention ties results to fundamental lack of understanding of insurance products.
Handel and Kolstad (2015)	Large-employer	Studies role of limited information in plan choice by investigating consumer choice between plans at large-employer using claims, choice, and survey data related to consumer information about plan options. Consumers lack information about plan provider networks, financial characteristics, and hassle costs that can cause them to leave thousands of dollars on table in choice.
Strombom, Buchmueller, and Feldstein (2002)	Large-employer	Documents evidence of inertia in a large-employer setting, related to (i) whether choices are active or passive and (ii) whether consumers have active ongoing medical care (which makes them less likely to switch).
Abaluck and Gruber (2013)	Medicare Part D	Documents money left on table in Medicare Part D prescription drug plan choices over time. There is limited consumer learning; consumer forgone savings increase over time, in large part because of changes to plan designs over time combined with consumer inertia.

Studies of Consumer Choice in Health Insurance Markets (continued)

Study	Market	Key Results
Abaluck and Gruber (2011)	Medicare Part D	Documents money left on table in Medicare Part D prescription drug plan choices. Elders place higher weight on premiums than on other financial characteristics, and place very little weight on aspects of plans that reduce financial risk. Consumers would have been 27 percent better off if all chose rationally, and market remained as observed.
Ho, Hogan, and Scott Morton (2015)	Medicare Part D	Documents money left on table both in active choices and from inertia in Medicare Part D market in New Jersey. Studies supply-side responses to consumer inertia, and shows that reducing inertia could have substantial impact on competition, and markedly reduce premiums, leading to both increased consumer welfare and government savings.
Kling et al. (2012)	Medicare Part D	Studies elders making Medicare Part D plan choices. Performs information intervention where elders are given targeted information about which plans might be best for them. Increases switching rate for elders, and improves their plan choices.
Ericson (2014)	Medicare Part D	Documents persistence in consumer choice in Medicare Part D market, and pricing patterns consistent with "invest then harvest" pricing where insurers take advantage of consumer inertia in pricing.
Heiss, McFadden, and Winter (2010)	Medicare Part D	Provides evidence on choice in Medicare Part D, documenting consumer attitudes and money left on table in initial, active Medicare Part D choices.
Ketcham et al. (2012)	Medicare Part D	Studies specific behavior of Medicare Part D enrollees over time in 2006 and 2007. Within sample, evidence that people made substantially better choices in 2007 than 2006, indicating consumer learning about product value over time.
Ketcham, Lucarelli, and Powers (2015)	Medicare Part D	Shows that 50 percent of consumers were not enrolled in their 2006 drug plans by 2010, and that switchers gained better plan value. Having more choices is correlated with increased switching rates, implying choice overload may not be a problem on the margin in Medicare Part D.
Polyakova (2014)	Medicare Part D	Investigates switching costs and inertia in the Medicare Part D market, showing that switching costs are large and have important implications for the plans consumers are enrolled in.
Marton, Yelowitz, and Talbert (2015)	Medicaid Managed Care	Studies a policy where Medicaid enrollees in Kentucky were automatically enrolled in one of three managed-care plans and given 90 days to opt out. Some enrollees were defaulted into plans with their primary care physicians, and others were not (likely a poor option for them). 30 percent of all enrollees remain in matches without their primary care provider over a long time horizon, exhibiting evidence of substantial inertia in presence of default options.
Ericson and Starc (2013)	Massachusetts Exchange	Studies change in Massachusetts where exchange plans were required to standardize many financial dimensions of insurance products. Consumer valuation of certain attributes change, in manner that conforms more closely to rational valuation model.
Fang, Keane, and Silverman (2008)	Medigap	Studies choice in Medigap, with key result that consumers with limited cognitive ability may make poor choices, leading to adoption by the healthiest individuals (so-called advantageous selection).

In a large-employer insurance context, Handel and Kolstad (2015) document limited consumer information about plan options and the implications of that limited information for insurance purchase value. We link individual-level data on the insurance plan options available to them, the insurance plan actually chosen, and detailed medical claims. The study shows that consumers lack information on a range of important choice dimensions of the primary insurance options, including (i) financial characteristics (e.g., deductibles, coinsurance, out-of-pocket maximums), (ii) provider networks, and (iii) their own financial medical expenditure risks. Consumers in the bottom half of the population in terms of information about plan choices are willing to overpay $2,792 on average for more-generous insurance coverage, relative to identical consumers who are in the top quartile in terms of plan information. That is, low-information consumers are making systematically different choices that are costly even though when they actually enroll in the plan their experience would likely be similar to those who understand the choice environment better.

Bhargava, Loewenstein, and Sydnor (2015) present another clear example of the difficulties consumers have in making insurance decisions, also in a large-employer context. The authors study employee insurance choices at a firm that implemented a "build-your-own" insurance plan system, where employees could choose from 48 possible insurance plan designs. Notably, of these 48 options, many are dominated: regardless of the final level of realized medical expenditures, certain plans could never deliver greater financial value than other specific plan options. The authors document that many employees choose dominated plan options, and in the process overpay by an average of 42 percent of premiums for their medical care for the year (an overpayment on the order of magnitude of $1,000).

A range of studies document consumers leaving meaningful amounts of money on the table in the context of Medicare Part D, a prescription drug insurance program for the elderly that enrolled 37 million people in the United States in 2014. Medicare Part D has been a notorious example of a difficult product market for consumer choice; consumers across regions within the United States choose from a menu of thirty to forty plans, on average.

Abaluck and Gruber (2011) and Abaluck and Gruber (2014) document choice inconsistencies among the elderly, where an inconsistency represents money left on the table in the choice process. One nice feature of Medicare Part D is that, because it pertains only to prescription drugs for the elderly, it is easier to predict drug utilization/risk for the upcoming year for any given consumer than in a general health market. The authors find that, on average, consumers spend $300 to $400 more than what they would have spent in their cost-minimizing option, and that this gap is not diminished after accounting for heterogeneous consumer risks and consumer risk aversion. In their 2011 paper Abaluck and Gruber conclude that consumers lose 27 percent of the total cost of their medical care on average from these choice inconsistencies; the 2014 paper supports their earlier results. One key finding in both papers is that consumers overweight plan premiums, which are more salient, relative to underlying plan financial characteristics such as deductibles and copayment rates. Taking these findings one step farther, Kling et al. (2012) conduct an information provision campaign to seniors choosing Medicare Part D plans. They find that information provision does encourage seniors to switch to and select more-valuable plans for themselves, but that the number of consumers who remain in plans with much lower value than possible is still quite high. Importantly, the information provision in this study does not capture key components of insurance choice such as network and risk, one potential driver for the large remaining consumer group making suboptimal decisions.

Taken together, this literature points to clear choice errors that are both prevalent and costly even in environments where consumers make active choices. Providing personalized recommendations and decision support to consumers improves their choices. However, even effective personalized recommendation tools may not be enough to encourage active choice over time in the market—a necessary condition to realize the benefits of competition for consumers—if inertia is important and the market environment evolves over time, as is expected in the ACA exchanges. Instead, smart default policies may have the potential to be much more powerful for inactive consumers already in the market, who may not reevaluate their plan options each year.

Indeed, there is a large literature demonstrating that inertia plays an important role in reducing consumer choice effectiveness in health insurance markets. Handel (2013) finds that employees are willing to leave an average of $2,032 on the table in an environment where the plans from which consumers can choose changes quickly in the market from one year to the next. The study also documents a range of cases where consumers enroll in dominated insurance plan options (where they lose approximately $1,000 relative to another option in the best case scenario) and that new employees make substantially better choices than employees from prior years as the market evolves over time. In the Medicare Part D setting, several studies (Abaluck and Gruber 2014; Ericson 2014; Ho, Hogan, and Scott Morton 2015; Polyakova 2014) all document inertia and/or switching costs. Taken in sum, these papers illustrate that consumers lose a substantial amount of money from inertia above and beyond the money they leave on the table from active decisions, discussed earlier.

Success of Smart Defaults in 401(K)

The movement toward default-based policies for retirement investment decisions (e.g., 401(k)) is an encouraging bellwether for bringing smart defaults to health insurance. Similar to insurance choice, prior empirical evidence from 401(k) elections and investments clearly pointed to large and meaningful consumer choices errors: people underinvest in general and also make suboptimal decisions about types of investments to make. Defaulting people into retirement savings levels, for example, at the full match rate of an employer, has proven to be a very effective way to enhance saving (see, e.g., Madrian and Shea 2001). Despite this, a major barrier to implementing a default policy was the difficulty in identifying individual preferences for risk and investment types: How can you default people into a savings plan without knowing their savings goals or how much risk they would like in their portfolio?

The advent of retirement age–targeted mixes of stocks and bonds, however, made feasible a default policy that was personal to that individual (based on age and retirement goals). Thus, in the domain of 401(k) choices, demographic information on age, income, and expected retirement date, coupled with a financial model of life-cycle consumption, allowed for smart default policies that have led to substantial improvements in consumer savings and lifetime welfare.

In a different setting—Medicaid in Kentucky—Marton, Yelowitz, and Talbert (2015) study a recent change whereby consumers were automatically enrolled in one of three managed care plans and given 90 days to opt out of those plans. Some enrollees were defaulted into plans with their primary care physicians, and other were not, indicating that that default was likely quite a poor option for them. The authors find that 30 percent of all enrollees remain in matches without their primary care provider over a long time horizon, exhibiting evidence of substantial inertia in the presence of default options. This suggests that default options, if well chosen, have the opportunity to substantially impact consumer enrollment and the value that consumers derive from insurance exchanges.

Though the literature has not been able to assess the impact that better consumer decisions would have on changing insurance product offerings in the market, the economic theory suggests that such effective consumer decision making is crucial for ensuring that the best possible products are offered in the market. Moreover, in establishing the goals for any policy or set of policies to facilitate consumer choice of health insurance products, there is an important distinction between the status quo of insurance options available on existing exchanges and new plan offerings and prices that might become available as insurers dynamically respond to consumer behavior and the entry of new exchanges. Smart policies can have an impact and generate social value in both cases. These are lofty goals given a long history of a lack of transparency, consumers' inability to make optimal decisions and, once they choose a plan, facing a series of "gotchas" in the form of unexpected costs if they need care. Insurers, on the other hand, have responded mainly by trying to lower cost and quality and avoid sick consumers. This combination has generated the kind of zero-sum competition that has characterized the U.S. health insurance market, and, some argue, U.S. health care as a whole (see e.g., Porter and Teisberg 2006). We are, however, optimistic that the United States is at a turning point due to the regulatory backbone created by the ACA—in particular the individual mandate and prohibition on pricing based on preexisting conditions—as well as the introduction of exchanges. Nevertheless, without smart policies to facilitate consumer choice, it will be difficult to see the welfare gains that innovation and competition have generated in other settings.

Chapter 3. The Proposal:
Personalized Decision Support and Smart Defaults

Before expanding on the proposal in depth, we note that there are multiple goals for enhanced decision support that reflect the existing insurance options available as well as the broader set of plans that could be offered. The first goal of personalized decision support should be to enhance consumer welfare given the set of available insurance options on exchanges as they stand today. At a simple level, this requires moving consumers toward choices that best reflect their underlying preferences over health-care access, insurance product quality, and financial risk protection. Second, personalization and targeted recommendations will enhance competition among insurance plan offerings in order to lower prices and improve quality of the existing product offerings.

The two key features of our proposal require the CMS and state health exchange operators (i.e., the regulator) to:

1. Adopt and promote a narrow and more-targeted consumer search tool based on algorithms that assess consumers' projected needs and how they might experience each plan, and

2. Create an opt-out system of health insurance plan selection, where the regulator switches a consumer from a poorly matched to a well-matched plan during the open enrollment period, but only if the regulator is highly confident that the consumer would be made better off and if the consumer can easily switch back to the previous plan.

The core of our proposal is an extension to the requirement in the ACA that some form of consumer search tool must be provided by any ACA exchange.[1]

We propose CMS and the state exchanges use the authority in the ACA to develop more-precise and more-surgical decision support tools that take into account individual-specific characteristics, potential future health-care costs, and the underlying value of insurance resulting from expected financial outcomes, risk protection, and available in-network medical providers and services.

Given the paucity of such tools today, both in public exchanges and in longer-running private exchanges, there is a role for regulatory interventions to more carefully define the underlying elements of decision support. Specifically, decision support should (i) allow a specific individual to understand

how much she can expect to spend in total for each plan, (ii) understand plan generosity that protects her from risk, and (iii) understand in a succinct and comparable way the quality of the network of physicians and hospitals in each plan.

Before we turn to the specific details, we note that in order to accomplish any goal of enhancing consumer decision making, creating smart defaults, or lowering the public budget cost of subsidies for health insurance, the necessary data infrastructure must exist to collect information about plans' benefit design and coverage of health-care networks, consumers' health needs, their preferences for providers, and so forth. (We refer the reader to box 2 for a discussion of the requisite data infrastructure components under different scenarios.) To support the necessary data infrastructure, we believe there is an important role for CMS and the state exchanges because comprehensive data collection is a public good—the social value of contribution is greater than the private value to each insurer who might contribute data. For example, there is evidence that insurers have strong reasons to obfuscate particular plan details, such as the cost of covering different types of illness or drugs, and the doctors or the hospitals that are in and out of network. To address the possibility of this kind of obfuscation, CMS and the state exchanges should strive to promote a robust and centralized data collection policy, and then integrate those data into their preferred method for improving consumer choices in the market. There are many ways, however, to assemble the data using both public sector and private sector resources. Therefore, we do not propose a specific type of data infrastructure but rather discuss the kinds of data that can support our proposal. Importantly, this discussion highlights that new data collection efforts are not prerequisites to developing either decision support or smart defaults, given the data and resources available today.

Next we describe several current distinct examples of exchange data infrastructures. Given what is currently seen in practice, and what seems reasonably possible in some environments, we discuss our policy proposals in the context of the following dimensions of data scale and depth:

- **Standardized descriptions of benefit design and coverage.** The first, and potentially simplest, of our proposed data collection strategies is that all participating insurers provide detailed information on the plans they offer using a standardized, machine readable file format. Today

Enabling Next Generation Exchanges with Data Infrastructure

In this paper, we focus on choice policies in the context of what data environments are possible. In some cases, an exchange may not have the legal authority, stakeholder buy-in, or technological infrastructure to implement a detailed and comprehensive data collection and dissemination program. In some cases, such data collection is possible but not yet implemented, and in others such policies and data are already in place. We do not provide a general discussion of the different legal, political, and technological obstacles to a robust centralized exchange data collection platform, though we do discuss some related issues in the questions and concerns section at the end of the paper. For the policies discussed in this proposal, the crucial facts to keep in mind are that right now we see many different kinds of exchange data collection structures in practice, and that the effectiveness of the policies that we discuss depends on the scale and depth of those data.

most insurance companies provide a SERFF (System for Electronic Rate and Form Filing) file format description of their benefits. This is available for all insurers participating in HealthCare.gov and, in many cases, state exchanges. Throughout this proposal, we assume that such data are available and usable by the regulator, and potentially by third parties, as a backbone for plan recommendations and smart defaults.

- **Up-to-date information on hospital network inclusion and benefits.** The associated hospital and physician network an insurer develops is a key element that differentiates plans. In fact, network formation is one of the key dimensions under the ACA where insurers can create value relative to other insurers. Despite this, it remains a major challenge to access up-to-date information on coverage, even in more-mature private insurance markets such as Medicare Advantage. As innovation by insurers increasingly moves toward narrow networks, any ability of enrollees to make an informed choice or a regulator to provide a smart default will require understanding of (i) network breadth and (ii) an easily searchable and up-to-date database of plan providers. To date, insurers have been reticent to provide detail in a standardized format and, in most cases, require potential enrollees to access an insurer-provided lookup tool in order to assess coverage. Such fragmentation with little ability to assess accuracy is not and will not be sufficient to support next-generation exchanges, such as those we propose. Therefore, there is room for a regulatory approach to make these data available, given the public good nature of the problem. Throughout this proposal, we discuss a range of data environments, including those where such rich provider network level data are available and those where they are not.

- **Individual-Specific Health Information.** The policies we discuss will have different levels of effectiveness depending on the level of centralized, individual-specific health information that can be accessed by the regulator and/or third-party recommendation engines. We discuss our choice policies as a function of the different broad types

of data that are seen in practice or may be reasonable to implement, including these:

- **Basic Individual Demographic Information.** The data structure with the least detail we consider is one where basic demographics, such as age, gender, and income (e.g., from subsidy calculator), are known, but little else is known. Recommendations and smart default policies can still be quite useful in these environments, especially when used in conjunction with large nationally representative claims databases such as the Medical Expenditure Panel Survey (MEPS). That said, limiting the extent of individual-specific information at the time of purchase makes policies relatively less effective.

- **User-Provided Health Information.** Many current environments allow users to input some health information, including past expenses, indicators of certain medical conditions, or general preferences related to provider networks. This information can provide important signals of appropriate plan choices.

- **Limited Administrative Health Information.** In certain cases, exchanges or employers are able to centralize limited administrative health information without collecting detailed individual-level claims data. These data provide individual-specific indicators of past health conditions or spending, but not highly detailed data of past health incidents.

- **All-Payer Claims Database.** An all-payer claims database (APCD) incorporates medical claims at the individual level from all insurers participating in a given exchange. We take this to be the gold standard for data given the policies we discuss. These data can be used at the individual level to either recommend plans or implement smart defaults in a highly targeted way for each individual at the time of plan choice. Integrating such data in a centralized way, such that it can be used for the policies we discuss, is certainly possible; such use also faces legal and political difficulties in some settings, however.

Many current exchanges have fairly limited individual-specific data: it is crucial to note that the policies we discuss can still be implemented by effectively harnessing alternative data sources and relying on predictive and matching models. This emphasis is particularly relevant given the upcoming Supreme Court decision in *Gobeille v. Liberty Mutual Insurance Co.* (2015) which may limit the ability of APCD operators to subpoena data from private insurers. Were that ruling to go the way of the insurance carriers, it would still be feasible to implement all of the proposed policies here.

Though not the primary focus of this article, we believe that a comprehensive, national regulatory standard that makes clear what data must be reported and provides a uniform format to report those data should be developed for state-based exchanges and other government-regulated insurance markets. This standard should strive to provide as much data depth as legally and politically feasible in order to facilitate basic research, as well as the implementation of choice policies by regulators and third-party companies, whose work will be critical to realizing the value of the underlying data.[2]

PERSONALIZED INFORMATION PROVISION AND RECOMMENDATIONS

We now describe what we view as the key elements of personalized information provision in turn, including

- Individualized plan cost calculator for hospital and physician services,

- Individualized plan cost calculator for prescription drug coverage,

- Critical aggregate information about the breadth and quality of the plan hospital and physician provider network,

- Specific information about the overlap between the plan provider network and an individual's current providers, and

- An assessment of plan risk protection in the context of individual-specific risks and risk preferences.

First, any personalized decision support should allow an individual to understand how much she can actually expect to spend in each plan offered to her. This information should be provided as a total, plan- and individual-specific, expected out-of-pocket cost number.[3] Cost calculators should incorporate both the cost of potential hospital and physician services an individual is likely to consume as well as her cost to take medications under each plan. While these are all covered health benefits, the data infrastructure often distinguishes these two elements.

There are many different approaches to computing costs and integrating personal preferences. The kind of decision support we propose relies on algorithms to assess consumers and understand how they might experience each plan. These predictive models mirror the kinds of personalized decision support and product recommendation that have been developed in online marketplaces beyond health care (e.g., Amazon, Netflix). Specifically, an individual, predictive cost calculator will take information an individual can supply (e.g., age, gender, zip code, drugs taken). Using these data, the algorithm will then rely on a large, representative set of data to produce a prediction for that individual of how much she can expect to spend in each plan. This prediction is informed by, potentially, millions of other individuals' actual medical experiences and the detailed data on the insurance benefits. In addition to predicting the average experience, it also allows for an assessment of "good" and "bad" scenarios, again based on individuals' actual experience. That is, a user who enters only a small amount of information will get as accurate a prediction as possible of how much she specifically will spend in each plan on average, were she (i) to stay healthy and were she (ii) to require substantial medical care.

The goal of any approach is to yield the kind of information that is critical to informed consumer choice: a clear understanding of expected cost in each plan offering. Critically, these proposed cost calculators are (i) forward looking and (ii) personalized. That is, they take into account future health-care states for a specific individual. This stands in contrast to some existing cost calculator tools that either use average enrollees in the whole population (e.g., the mean of data from the MEPS) or past years' claims run through future year benefits (e.g., asking about planned events such as surgeries in the next year). These existing approaches are not without merit, but both are insufficient to yield the kind of individual choice that encourages insurers to compete for their business. Other decision support tools that rely on extensive questionnaires, notably asking about planned health spending, are unlikely to recover valuable information (recall that individuals have difficulty accurately understanding health risks and cost), and may also exacerbate adverse selection, undermining the value of competition in the marketplace.

In addition to simply understanding the average experience an individual can expect in each plan, true decision support in insurance markets must address the fundamental reason people purchase insurance: risk protection. As we discussed, risk aversion is manifested in insurance purchases as an increase in willingness to pay fixed amounts in premiums to enhance coverage in case of illness or injury. Decision support should allow individuals to make that assessment in choosing an insurance plan by allowing them to understand how well a plan covers them under different scenarios or health outcomes. This should include assessments of both in-network and out-of-network scenarios, alongside information about network breadth and quality.

This type of personal decision support could take on different forms. As in the cost calculator case, tools can be developed that assess different scenarios for individuals as well as their preferences on a predictive basis. Given sufficient data, individuals could then understand the risk protective value of a benefit in totality without having to do a lot of computation themselves. For example, suppose a Medicare enrollee is choosing between two Medicare Part D benefit options to cover her for drug spending. Suppose that for the current medications she is taking she has precisely the same expected out-of-pocket cost—the premium plus the cost sharing for those drugs. Suppose further that one of the plans has a much more restrictive formulary that does not cover many frequently prescribed drugs. A risk-averse consumer—and appropriate decision support for that consumer—would prefer the more generous formulary based not on the state of the world today, but rather on the fact that the potential downside is larger (high variance) in the plan with less coverage for the same price today. While this kind of thinking adheres to our understanding of why people buy insurance, this kind of decision support has rarely been implemented in practice.

Alternatively, some proposed decision support tools allow individuals to understand different cases of what spending in each plan might look like. For example, a best-case, medium-case, and worst-case scenario can be provided for each plan and an individual can trade that off against the premium for each. While this has appeal, scenario-based decision support tools can potentially exacerbate the very choice errors they seek to alleviate. For example, we already know that people have difficulties in understanding probabilities, particularly when assessing low-probability events, and place excessive weight on premiums relative to future out-of-pocket expenses (e.g., Abaluck and Gruber 2011, 2014; Bhargava, Loewenstein, and Sydnor 2015; Handel and Kolstad 2015). Thus, telling people worst-case scenarios may well lead to a strong response, even in cases where such an outcome is highly unlikely. Given these drawbacks, we support the first approach: relying on personalized recommendation algorithms akin to those found in non-health-care marketplaces.

In addition to the tools described above, which focus primarily on the financial aspect of insurance products, we also propose a comprehensive tool that will allow individuals to assess the networks of hospitals and physicians available in the plans from which they are choosing. Evidence suggests this feature is an important element of choice in insurance products (e.g., Ho 2009). It is also an increasing source of differentiation and innovation for insurers tackling cost with so-called narrow network plans. For these kinds of plans to truly generate the gains hoped for—higher-value health care—consumers must be able to understand what they are gaining or giving up in moving from one plan to another. Plans that offer lower cost options but leave consumers paying out-of-pocket for care because of a

"gotcha" in the network of physicians covered do not constitute innovation, in our view. For example, a network might include Hospital A, but some physicians at that hospital are actually out of network; if they end up treating a patient at the in-network hospital, the patient might have to pay the doctor out of pocket. To address this issue, exchanges should offer some form of tool that will allow individuals (or families) to understand coverage across plans.

There are two primary approaches to network decision tools, though they are not mutually exclusive. The first is simply providing the ability for individuals to sort/screen out plans based on whether specific doctors, hospitals, or both are included. The second approach seeks to incorporate a broader notion of overall network value/coverage into decision support. The first approach is simpler to implement because it merely requires a clear data set on networks for each plan offering.

Using the first approach alone, while simpler, can leave individuals without the ability to clearly trade off cost and network generosity. For example, suppose a consumer has visited a specialist once for a minor treatment. She may have little value in seeing that doctor again but has him on a list of visited physicians (particularly in cases in which decision support draws from a provider list generated from previous health-care claims). Simply eliminating or sorting out plan options not including that doctor might leave the consumer seeing only a handful of options without the ability to understand how much lower premiums would be were she to move to plans without that doctor in the network. Thus, network evaluation tools that allow individuals to understand the cost (and risk protective benefits) for all plans, including those without coverage for some or all of their hospital and physician preferences, is an important feature to allow for informed consumer choice.

Tools that extend this approach to account for the value of access to hospitals or doctors based on the expected utilization and preferences for an individual can provide value by simplifying demands placed on consumers. They can eliminate the need to configure and reconfigure different network combinations to trade off cost against network but, as above, require sufficient data infrastructure and analytic capability.

Regardless of the approach, incorporating demonstrations of individualized risk protective benefits and network or service quality into decision support is fundamental to a well-functioning marketplace. Individuals will be better aligned to plans given the existing set of options. In addition, incorporating risk into choices is critical to generating a sustainable marketplace because it pools people who are willing to pay for additional risk protection or network/service quality with those who are relatively sick, and therefore value generous coverage due to expected cost. In the absence of such pooling—for example, in the case in which people merely choose plans based on planned surgeries or on past years' costs, as is the case with

TABLE 2.

Plan Values in Different Choice Scenarios

	Value over Worst Plan*	Value over Chosen Plan*	Percent Sample Benefiting	Percent of Sample Losing	Average Benefit*	Average Loss*
Chosen Plan	25.79%	0.00%	0.00%	0.00%	0.00%	0.00%
Random Plan	20.14%	−5.65%	32.30%	51.55%	12.23%	−18.62%
Best Possible Plan	35.33%	9.54%	74.79%	0.00%	12.75%	0.00%
Age-Gender Best Plan	29.82%	4.03%	52.45%	25.63%	13.32%	−11.54%

* As percent over average annual premium paid.

most decision support today—adverse selection can undermine both pricing of plans (raising cost for more generous benefits) and, in the extreme, lead to elimination of plans completely or lack of entry by innovative, more-generous benefits.

EXAMPLE: APPLICATION OF PERSONALIZED RECOMMENDATIONS

In order to illustrate the important impact that personalized recommendations could have in health insurance markets, we set up a simple consumer choice simulation. Though intended to be illustrative only, we chose model parameters such that consumer and health plan characteristics are similar to those actually seen in practice. The technical details of the simulation are presented in appendix A.

In our example, we study several illustrative plans similar to those that could be found for single females between the ages of 19 and 44 who are on the Covered California insurance exchange. Our simulation assumes there are six different plan options available to consumers, characterized by

- **Network:** Two distinct insurers, each offering a unique provider network in each financial tier;

- **Financial tier:** Bronze (60%), Silver (70%), Gold (80%); and

- **Premiums:** Plan-specific premiums.

The details of each plan are provided in the technical appendix.

We simulate a population of 10,000 19- to 44-year-old females with the following characteristics that differ in the following ways:

- **Health risk.** We use nationally representative data to assess the likelihood of different expected health spending amounts for women in this age range. We also project risk around those expected expenditures for each population member.

- **Risk aversion.** We simulate consumer demand for risk protection using numbers similar to those estimated in the academic literature.

- **Choice frictions.** We model differences in decision-making quality by simulating consumer misperceptions about plan value, with variation across individuals similar to those found in the literature.

- **Network value.** We simulate heterogeneous valuations for each of the two provider networks offered.

Given the insurance options available, for each consumer we use these characteristics to compute the corresponding value for each plan option in the market.

Table 2 illustrates the amount that consumers could save via personalized recommendations as a function of different underlying decision support tools using different data elements. The top row studies the simulated choices consumers make, given their characteristics, if they chose on their own with no personalized decision support. Consumers in this example lose value equal to 9.5 percent of their mean annual premium when choosing on their own, relative to their best possible choice.

The second row studies consumer well-being when she is randomly allocated to any plan in the market, relative to the environment where she chose on her own. This very roughly mimics an environment with substantial consumer confusion, and is precisely the mechanism used to default low-income consumers into plans in Medicare Part D. Under random assignment, consumers are worse off by an average of 5.7 percent (of their mean annual premium) than when choosing on their own. Relative to choosing on their own, 32.3 percent of consumers are better off (with an average benefit of 12.2 percent of spending) under random choice, and 51.6 percent are worse off (with 18.6 percent average loss).

The best possible plan scenario referred to above mimics the case where (i) the regulator has ideal data, (ii) personalized plan recommendations are available, and (iii) consumers always act on those recommendations. In that case, about 75 percent of consumers are better off than if they chose on their own. If consumers only sometimes act on these recommendations,

the relative value under recommendations with ideal data will be somewhere in between the outcomes under the first row (choice alone) and the third row (best possible outcome).

The fourth row examines a recommendation scenario where the data are not ideal, and the regulator observes only individual age and gender. Consumer welfare improves by 4.0 percent of annual premium paid, relative to choice with no recommendation, less than half of the way to the improvement that occurs under recommendations with ideal data and decision support. Under this less-precise recommendation, 52.5 percent of consumers are better off than under choice alone, but 25.6 percent are worse off if they follow the recommendation.

The example in table 2 illustrates the potential value and trade-offs present for targeted personal recommendations under different data environments. We reexamine the nuances of our smart default policy in the context of this simulation after describing our policy proposal.

SMART DEFAULTS AND EXPLICIT NUDGING

The second prong of our proposal recognizes that, as discussed above, inertia and passive choice architecture can have a large negative impact on the value consumers derive from insurance exchanges. Here we move beyond merely enhancing the ability of individuals to make smarter and more-personalized choice across insurance plans. Under our smart default policy, an individual will be defaulted into a plan that is predicted to best provide low-cost, high-quality care for that individual. Using the same tools available to allow for personalized search, exchange operators and regulators will automatically enroll individuals in the plan that is best predicted to fit their needs. All enrollees would still have the ability to opt out of the default and instead choose any of the available plans for them. This is the so-called libertarian paternalism approach espoused in the book *Nudge* (Thaler and Sunstein 2008).

Given the evidence on consumer inertia and its implications for plan choice, smart default policies could dramatically improve consumer satisfaction with insurance plans and reduce government budgets, simply by nudging consumers toward more-valuable choices when it is clear that those choices are in fact more valuable. The effectiveness of smart default policies relies crucially on the regulator having access to (i) consumer-specific information and (ii) a trustworthy underlying model of when choosing a poorly aligned plan is especially costly.

Smart Defaults in Health Insurance

We now describe our smart default policy in greater detail. Critically, we assume that the models necessary to support individual insurance choice and understand individual value in each plan—the tools we describe above—have been implemented. That is, smart defaults rely on individual

decision support to determine the appropriate default (where the "smart" comes from). We further assume that the data necessary to determine how much consumers would value insurance plans are available, because such data do exist today (see box 2).[4]

The design of our smart default model will have three primary model components:

1. **Increase in expected plan value.** Consumers' expected financial benefit from the new default option, relative to their current plan, should be greater than some amount that depends on the confidence the regulator has in its assessment of insurance plans and consumer heterogeneity. Regulators will develop and use statistical models of health risk based on administrative individual-level health risk data to predict the probabilities of different levels of total medical spending in the next year. Regulators will combine this model of health risk with a model of insurance plan payments (for each plan in the market) to assess the expected financial benefit from the new default. We present an example of the approach, in the section "Application of Smart Defaults."

2. **Minimal extra risk exposure.** Consumers' maximum financial loss from the new default option, relative to their current plan, should be less than some amount. This threshold should depend on income, family status, and consumer-provided information on risk aversion, if observed. The regulator will develop the maximum financial loss statistic based on a careful model of insurance plan designs.

3. **Provider continuity.** Consumers' new default option should contain all medical providers from which the consumers have regularly received care over the last two years. Regular visits would be defined by a regulator and could be health-condition specific. If key regular providers are not in network for a candidate default option, consumers will not be defaulted into that option. In addition, the regulator will characterize network breadth of a given plan in general, and not default the consumer into a plan with substantially lower value for providers in network within a given radius of that consumer's zip code.

Figure 1 displays these conditions for a smart default and specifies the inputs necessary, and conditions required for the consumer to be defaulted into a different plan option.

Specific regulators can fine-tune their smart default policy to be more or less aggressive depending on how they weight the potential gains in value relative to the losses that might occur through misassignment when implementing smart defaults manifest in their respective environments. A more aggressive policy would reduce the expected value threshold, increase the maximum worst-case risk threshold, and reduce the threshold

FIGURE 1.

Smart Default Example
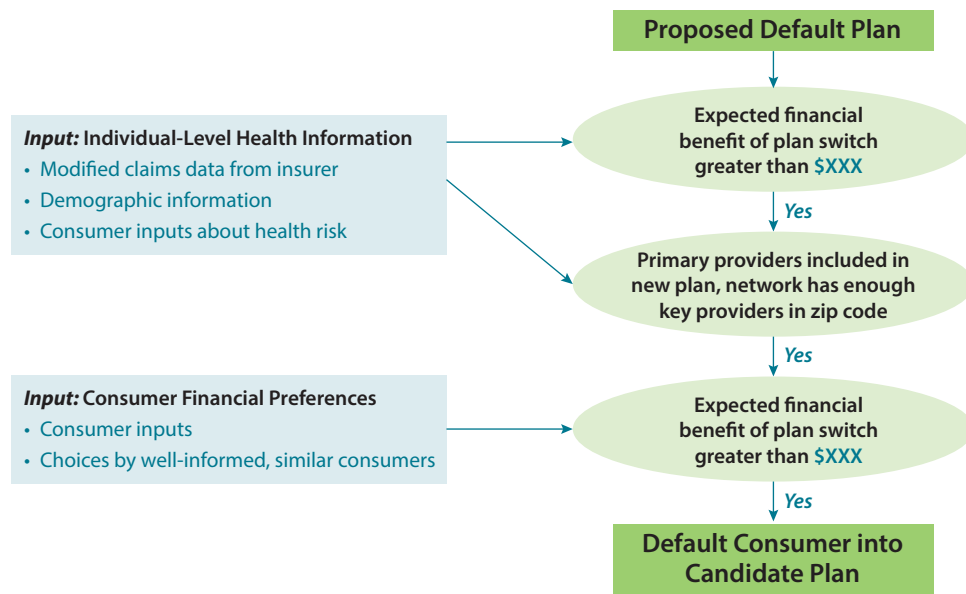
for how narrow the new default plan provider network is. The regulator could thus implement this policy in a manner that defaults only, for example, the 1 percent of the sample who are leaving substantial value on the table into a new plan, or, for example, 50 percent of consumers who seem to be leaving some value on the table.

If effectively implemented, these smart defaults not only ensure that consumers are not leaving substantial value on the table in their insurance choices, but also allow them to actively return to a previous plan or choose from the full menu of options. That is, for active consumers full choice agency is maintained but for passive consumers major errors are avoided and, in most cases, such consumers are aligned with an optimal or near-optimal plan. This directly links to (i) improved consumer welfare, (ii) reduced government subsidies to insurers, and (iii) potentially increased insurer competition, feeding back into lower premiums and higher product quality. Ho, Hogan, and Scott Morton (2015) illustrate this in the context of Medicare Part D: in their analysis, when consumer inertia is fully removed (e.g., by a fully effective smart default policy) insurer premiums are reduced substantially, leading to $550 million in government savings in their market over three years, and providing each consumer with an average $563 benefit. While that analysis does not investigate changes to product quality or regulatory capture—the ability of firms to influence the design of smart defaults—it does nicely illustrate

the potential gains from more-fluid consumer choices in insurance exchanges.

In cases where the federal government is subsidizing enrollee cost-sharing or premiums, we argue that there is both an opportunity and a clear rationale to take decision support one step farther. In many cases, choice errors are not dramatically impacting those individuals enrolling in insurance because cost sharing is partially or fully covered by subsidies. Instead, much of the burden falls on federal government budgets. Just considering the Medicare Part D market alone, a simple version of this policy was predicted to generate savings of $5 billion a year in the low-income subsidy (LIS) market, where nearly the full burden of poor choice is borne by the federal government (Zhang et al. 2014). We discuss this in more detail in box 3.

EXAMPLE: APPLICATION OF SMART DEFAULTS

In order to clarify the form and inherent trade-offs of a potential smart default policy, we return to the simulated environment studied at the end of the section "Example: Application of Personalized Recommendations"; this simulation is described in detail in the technical appendix. See those sections for detailed information on the microfoundations underpinning this simulated market and the consumers in that market.

BOX 3.
Medicare Part D: A Case Study in Smart Defaults and Government Spending

Medicare Part D provides a unique case study that underscores the potential fiscal impact of a smart default–based policy. In fact, we would argue for Medicare Part D as a natural initial context in which to implement such a policy.

Because Medicare Part D covers only drugs, consumer choice tools (e.g., at Medicare.gov) provide a far greater degree of personalization and prediction than in other settings (e.g., at HealthCare.gov) without substantial modeling and investment. While there remain some shortcomings such as incorporation of consumers' risk exposure and risk aversion of consumers, a default based on current drugs taken would fit our definition of a smart default. Zhang et al. (2014) study the impact a reassignment policy would have in the Medicare Part D LIS population. In effect, such a policy assumes complete compliance with the default approach. While this is likely to overestimate the impact of a nudge, given the high estimated switching costs in health insurance, the fact that the target is based on the expected cost and the substantial impact of defaults in other settings, this is a reasonable assessment of the potential for a smart default policy for Medicare Part D.

Enrollees with sufficiently low income pay only a small share of the premium and out-of-pocket cost for drugs when enrolling in Medicare Part D. The LIS component of the program is large: of the $60 billion spent on Medicare Part D, approximately 75 percent was for LIS-eligible enrollees (CBO 2014). The high cost stems in part from the number of people who are eligible for the subsidy. However, a major contributor is the fact that LIS enrollee out-of-pocket costs are almost entirely paid for by the federal government for nearly any Part D plan they choose. (There are exceptions for very-high-cost plans but these are rarely selected.) Furthermore, in assigning individuals who qualify for LIS to plans, the regulatory approach taken is random assignment to any plan whose premium is sufficiently low (i.e., meets the benchmark CMS sets annually). The majority of plans meet this benchmark in most CMS regions (states or groups of states that define a market for Part D). Therefore, the policy approach today is to randomly allocate individuals across Part D plans with widely varying levels of coverage for different drugs, both with respect to out-of-pocket cost exposure, and with respect to formulary and review requirement for drugs. This has some impact on the enrollees themselves, through higher cost and utilization review, but the majority of the impact falls on the federal government, which pays the out-of-pocket cost component. In other words, from a financial perspective, enrollees are largely indifferent and have little incentive to switch based on the drugs they take, but there is substantial difference in cost between plans for the Medicare program.

Zhang et al. (2014) estimate that, using data from the 2009 enrollment year, moving from a random assignment of individuals to plans to assigning them to the plan with the lowest expected cost based on the drugs taken by that individual in 2008 would generate savings of $5 billion annually for the program. The average savings per enrollee would be $738 per year. These savings would accrue to both the individual enrollees and the federal government, though due to the generous subsidy the majority of the value ($710 per enrollee) would be accrued to the government. In addition to the financial impact, if individuals were reassigned, Zhang et al. (2014) estimate they would see a 45 percent reduction in the share of their drugs that require utilization review. That is, people who are already taking specific drugs are being assigned (randomly) to plans that limit coverage—or at least create barriers in the form of review—for those very drugs.

This case underscores the potential value to a smart default policy for both the enrollees and, particularly in this case, government fiscal burden. The current policy that is predicated at least in part on not wanting to interfere with consumer autonomy, or to pick "winners" among health plans, has led to individuals being randomly allocated to plans that differ substantially in how well they match their actual needs. Given available tools—in this case a simple drug cost calculator already provided through Medicare.gov—an individual's match to a plan can be computed with a great degree of accuracy prior to assignment. While the estimated impact of total reassignment may be higher than the actual impact of a smart default with opt-out by consumers, the results underscore the potential benefits the policy might have for enrollees in terms of reduced costs, hassle, and review requirements. Furthermore, if a policy were to merely default the individual into the plan predicted to have the lowest out-of-pocket cost, individuals' abilities to switch to a plan that they preferred for other reasons would be maintained. Beyond the benefits that might accrue to such a policy given the existing set of plans and prices, a smart default policy would have the added effect of enhancing competition in benefit design and potentially moving the marketplace toward offering plans that provide greater overall value rather than targeting consumers who overemphasize the premium. Because insurers have to offer the same benefit structures to LIS and non-LIS enrollees, the reliance on smart defaults would have spillover effects on the broader population. With a smart default policy, insurers would have strong incentives to offer plans that both reduce premiums and provide coverage that is more generous overall. Rather than relying on consumers' focus on premium alone by lowering premiums and raising out-of-pocket cost sharing, plans would win business by providing more-comprehensive coverage for a lower cost.

TABLE 3.

Plan Values under Smart Default Policies

	Value over Worst Plan*	Value over Chosen Plan*	Percent Sample Benefitting	Percent of Sample Losing	Average Benefit*	Average Loss*
Chosen Plan	25.79%	0.00%	0.00%	0.00%	0.00%	0.00%
Randomized Plan	20.14%	-5.65%	32.30%	51.55%	12.23%	-18.62%
Best Possible Plan	35.33%	9.54%	74.79%	0.00%	12.75%	0.00%
Age-Gender Best Plan	29.82%	4.03%	52.45%	25.63%	13.32%	-11.54%
Predicted Best Plan: $0 Reservation	31.49%	5.69%	54.68%	22.51%	13.30%	-7.01%
Predicted Best Plan: $200 Reservation	31.00%	5.21%	38.76%	11.75%	15.71%	-7.52%
Predicted Best Plan: $400 Reservation	29.91%	4.12%	24.72%	5.57%	18.65%	-8.88%
Predicted Best Plan: $800 Reservation	27.74%	1.95%	7.86%	1.99%	27.15%	-9.37%

* As % of Mean Annual Premium

Table 3 repeats the results from the personalized recommendation scenarios described earlier, and adds results for a set of smart default policies characterized as follows:

- The regulator has access to reasonably detailed claims data that it uses to form a model of consumers' values for different plans. These data are not ideal, but provide a strong signal of plan value.

- The regulator defaults a consumer into a plan if the model predicts the consumer will gain at least some specified amount from switching. We study values of $0, $200, $400, and $800.

- We assume the market is a new market, such that consumers have not already chosen a plan with specific providers. A policy with existing consumer choices would respect consumer provider network preferences as well.

- The consumer remains in a new plan if she is defaulted into one. In reality, she could switch back or to another option if she wishes.

Row 1 represents consumers' chosen plans under the model described earlier, and row 2 describes consumers' relative value if they are randomly allocated to plans. Row 3, representing the true best possible choice, can be viewed as the outcome under ideal data with personalized recommendations that are always acted on, or a smart default policy implemented with ideal data where no consumer switches from the default. Row 4 describes either fully acted on personalized recommendations, or smart defaults, when the data available to support choice policies are limited to age and gender. Note that when the data used to set the smart default are more limited, the majority of consumers gain, but some actually lose. This occurs because even knowing someone's age and gender leaves differences in health-care use that will mean some people are made worse off; without more-detailed information to predict use, some individuals end up in plans that are worse than their previously chosen plan. The potential for value for an individual in a plan not captured by the algorithm underscores the importance of allowing individuals to opt out of default plans.

Rows 5 to 8 illustrate the impacts of the different smart default policies using ideal data, corresponding to the different thresholds for switching consumers. As the threshold for switching consumers rises, from $0 (row 5) to $800 (row 8), the smart policy becomes more conservative: fewer consumers gain from the policy, but at the same time fewer consumers experience negative outcomes where they are defaulted into a plan that is worse than the plan they would have chosen on their own.[5]

For example, for default thresholds of $0, $400, and $800, respectively, consumers are on average 5.7 percent, 4.1 percent, and 2.0 percent better off than they would have been with no policy and just their own free choice. For these three scenarios,

54.7 percent, 24.7 percent, and 7.9 percent of consumers are better off, respectively, than if no smart default policy were in place. However, the statistic on percentage of consumers that are worse off under the smart default policies illustrates the potential negative consequences of smart default policies. In fact, 22.5 percent of consumers are worse off under the smart default policy with a $0 threshold, while only 5.6 percent and 2.0 percent are worse off under smart default policies with $400 and $800 thresholds, respectively.

Thus, while consumers are better off on average in our simulation under more-aggressive smart defaults, there are also more "losers" under that policy. In our simulation, this policy is also comparable to a smart default policy based on age and gender alone, where 52.5 percent of consumers are better off but 25.6 percent are worse off.

Finally, we note that as the threshold for the smart default policy rises, the average benefit for consumers who gain from the policy rises substantially (from 13.3 percent to 27.2 percent), while the average loss remains relatively constant. This suggests that as the threshold is raised, the consumers most in need of a plan switch are still benefiting from the smart default policy, while fewer consumers are losing out.

It is worth noting here that the assumption that consumers actually follow plan recommendations in our analysis of personalized recommendation is an important one when comparing those policies to smart default policies. Research suggests that many consumers will not follow plan recommendations (though these studies generally consider decision support without the personalization and prediction we propose), but that smart defaults will be very effective in switching consumers—in other words, many will remain in the default. Thus, while our simulation illustrates the potential benefits of each policy, the results/trade-offs exposed should be viewed in light of those assumptions.

Chapter 4. Discussion

There is little doubt that, given reasonably detailed available data and the current market structure, a smart default policy will be the most effective of the policies we study in encouraging consumers to enroll in high-value insurance options. This means that, holding the available set of plans as fixed, a carefully crafted smart default policy should always deliver more value than less-effective policies, such as information provision on its own. Since information provision can always be implemented alongside smart defaults, and if smart defaults are effective in getting some inertial, or even active, consumers to switch coverage, as evidence suggests, then implementing a smart default policy will improve consumers' insurance choices.

That said, policymakers in any given market should also assess whether smart default will be too effective in getting consumers to switch insurance plans. If smart defaults are very effective in getting consumers to switch, it could be because the regulator is doing a good job of choosing those smart defaults, or because inertia implies that consumers will rarely change away from their default option, even if it is a worse option for them (this was highlighted in our example at the end of the last section). Moreover, if the regulator's smart default option is not sufficiently nuanced, it may end

up steering many consumers toward one or two insurance options and have a substantial impact on competition in the market. This clustering could either reduce competition in the market by favoring one insurer at the expense of others, or lead to regulatory capture where insurers and lobbyists get the regulator to steer consumers toward their plans. Additionally, insurers could try to game the smart default system to attract consumers by improving plans on certain dimensions and reducing coverage on dimensions not sufficiently valued by the smart default algorithm. This kind of algorithm-based shift in the market is well-documented in many settings, such as in the shift in website design to enhance rankings in Google search results (Lazer et al. 2014). Thus, while smart defaults have the potential to increase competition by effectively creating more price- and value-sensitive consumers, the defaults also have the potential to harm competition by heavily favoring certain options and moving large market share toward those options. Table 4 summarizes these potential pitfalls of smart default policies, alongside their potential advantages as discussed throughout this proposal.

Figure 2 explores the range of policies we propose in terms of (i) how effective the policies are in improving choices, given market structure, and (ii) the degree of consumer agency that

TABLE 4.
Potential Pros and Cons of Smart Default Policies

Gains in Welfare	Potential Challenges
The extra value created for consumers by more-aggressive policies (e.g., smart defaults) given the current market structure	Value lost for inertial consumers because the smart default policy moves them to a policy that is worse for them
The extra value created for the government by more-aggressive policies from lower subsidies and budget commitment	Value lost for consumers when competition is reduced because the smart default system overly favors certain plan options (whether inadvertently or due to regulatory capture)
The extra value created for consumers by more-aggressive policies as market structure changes, prices are lowered, and plan qualities improve	Value lost for consumers when insurers game the smart default algorithm and deliver low quality on dimensions that algorithm does not value

FIGURE 2.

Choice Policies: Consumer Agency and Choice Effectiveness
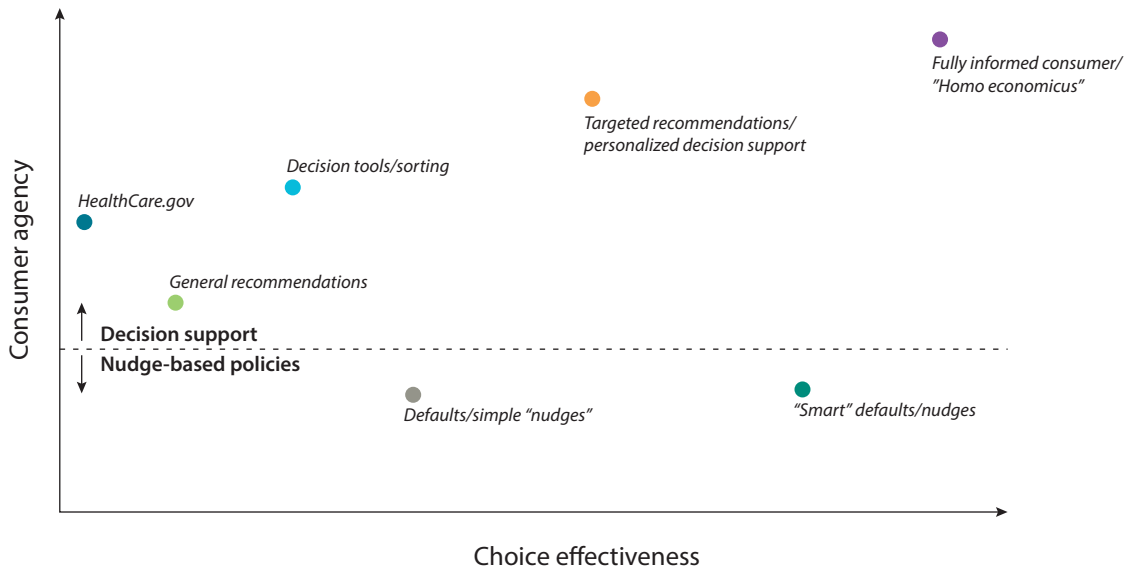
is reflected in insurance enrollment. Decision support policies that don't explicitly steer consumers into certain plans allow a greater degree of overall consumer agency in insurance enrollments but may be less effective than policies that do explicitly steer consumers into certain valuable options.

While quantifying these trade-offs is beyond the scope of current economic research on competition in health plan markets, the potential negative consequences of more-aggressive choices policies should be mitigated as the data used to support those policies become stronger, as the ability of insurers to capture the regulator becomes lower, and as the heterogeneity in plan recommendations becomes more

extensive. If, for example, the smart default algorithms switches 15 percent of consumers in the market, and switches them to a range of different insurance options, it is fairly clear that regulatory capture and algorithms that favor specific insurers are not a major issue. (The converse would suggest that these are important issues). To this end, regulators could implement a policy that limits the percentage of consumers in the market that can be defaulted into a given insurance option (with a mechanism for determining the consumers with the most to gain from that default option). This limit would be effective in situations where regulatory capture or models that favor specific insurance plans are issues.

Chapter 5. Questions and Concerns

Given the challenges exchanges have already faced (e.g., HealthCare.gov) why intervene?

One policy option is, of course, the path of doing nothing. While this would leave the kind of choice errors that are well documented, there is some evidence that over time individuals are able to learn and so improve their choices (e.g., Ketcham, Lucarelli, and Powers 2015). Despite this optimistic view, Medicare has provided a variety of plan options for prescription drug plans since 2006 and in Medicare Advantage for many decades. Given the continued choice errors in those markets, the evidence does not suggest the market alone is likely to yield the kinds of smart choices required to achieve policy goals (Abaluck and Gruber 2011, 2014). It is also important to be clear that not intervening is still a conscious choice; selecting not to use decision support or defaults defines the choice environment and yields an associated set of market outcomes. That is, we believe regulators and exchange operators should make the same active choices we espouse for insurance enrollees they are helping.

Most exchanges today report that they offer "decision support." How is this proposal different from that support?

Exchange operators today are working hard to enhance consumer experiences and many report providing decision support. Therefore, we want to make clear what we consider to be outside the scope of personalization and/or decision support, despite frequent efforts to brand these tools as such.

First, merely providing a detailed matrix on the plan options available to consumers and allowing them to sort by some of these features does not achieve the goals we have outlined. Most exchanges today have some form of this tool. For example, HealthCare.gov allows users to understand the premiums and coverage detail of each plan option. Similarly, Medicare.gov allows a consumer to see all of the available prescription drug plans in her zip code and sort based on premium, total cost for her current drugs, or other features of the plan. In the absence of the ability to synthesize such information and use it to make forward-looking plan choices, providing additional information may not enhance consumer choices. In fact, the kinds of sorting engines and information provision available today may be important contributors to choice errors.

Beyond provision of plan information that is uniform across consumers, some exchanges/consumer choice tools look to provide general recommendations and calculators that, effectively, allow consumers to input a set of criteria or characteristics and use the elements of insurance options to make a recommendation or present a scenario. Perhaps the best-known, and most-studied, version of such a tool is the cost calculator for Medicare Part D plans on Medicare.gov. That calculator allows an individual to input the drugs she is taking and understand how much each plan will cost her in terms of monthly premium and total out-of-pocket cost. Related tools of this type include subsidy calculators on ACA exchanges that allow individuals to input their income and receive information on the actual premiums they will face, depending on their subsidy level. Some exchanges, largely those that are private, also allow individuals to report conditions they have (e.g., pregnancy, etc.) or procedures they are planning (e.g., surgeries, etc.) to estimate the accompanying out-of-pocket costs.

There are two main concerns with regard to these kinds of simple calculators. First, the evidence does not provide strong support that access to simple calculators alone is sufficient to enhance consumer choice. The experience in the Medicare Part D market provides a cautionary tale as the evidence suggests substantial continued choice errors in that market (e.g., Abaluck and Gruber 2011; Kling et al 2012). Second, and more fundamental from a policy or exchange operator perspective, enhancing sorting on existing conditions or drugs taken can dramatically exacerbate adverse selection because sick people are steered to more-generous coverage and healthier people are steered to the opposite. Therefore, while intuitively appealing, decision support that relies on asking about planned events may be worse than not having decision support at all, depending on the setting.

Your proposal discusses how detailed and centralized data are quite helpful for implementing more-aggressive choice policies, though these data are not essential for weaker policies. What are the barriers to such robust and centralized data collection and why don't all exchanges automatically implement the most detailed data environment possible?

Fully answering this question is beyond the scope of this paper. There are many legal and political obstacles, especially in certain states, that stand in the way of implementing something like an integrated APCD, including the following:

- Insurers may be unwilling to share their data, and may not be compelled to do so. This may be especially true if their claims data contain proprietary information. We argue that this kind of information can be removed without really hurting the detail of the data that are useful for choice policy. This is a very prescient issue, at the heart of the upcoming Supreme Court Decision *Gobeille v. Liberty Mutual Insurance Co.* (2015) that may limit the ability of APCD operators to subpoena data from private insurers.

- Though not a long-run barrier, in the short run many insurers and state governments may lack the technological expertise or data infrastructure themselves to contribute to or to build a centralized system. While this can be rectified over time, it remains a short-run barrier. Leveraging outside vendors who are able to develop these tools and harness existing data is a plausible and, likely, efficient solution, particularly in the short term.

- Medical privacy law (e.g., Health Insurance Portability and Accountability Act of 1996 [HIPAA]) could restrict the way that individual-level data can be shared with third-party recommenders. There are many examples of high-quality recent research conducted using appropriately anonymized, individual-level data that are compliant with HIPAA. Based on this, we believe that sufficient anonymization can be achieved to support the proposal we outline.

- If data feeds take a long time to move from an insurer to the centralized data repository, data might not be recent enough, leading to worse recommendations or choice predictions. While there is value in rapidly updating data, the need to choose a health plan is reasonably infrequent, and when combined with widely available retrospective data to support decision making and smart default tools, this issue is unlikely to be a major problem. However, any ability to facilitate more-rapid and up-to-date individual health data will enhance any of the tools we discuss.

Chapter 6. Conclusion

This policy proposal has outlined a set of two key elements designed to enhance the function of insurance markets on exchanges. The target for these proposed changes are regulators and exchange operators across a variety of settings. We believe these changes would enhance consumer welfare—through cost reductions and improved insurance coverage—in Medicare, on ACA exchanges, and in private exchanges and employer-based settings with choice. That said, our primary focus is on publicly provided choice settings (e.g., Medicare, HealthCare.gov, and state-based exchanges).

We believe that (i) providing personalized decisions support and, in some cases, (ii) implementing a smart default policy will accomplish key policy goals. Specifically, we believe that consumers will pay less for insurance coverage and obtain better coverage among existing insurance offerings. Furthermore, innovation in insurance benefit design that provides real consumer value will result, leading to long-run market improvements. Simultaneously, the public budget impact of providing health insurance—a major component of state and federal budgets—can be substantially reduced.

Appendix A. Supporting Material for Choice Simulation

SETUP

To illustrate the benefits and trade-offs associated with a smart default policy, we construct a simple simulation in the form of a case study. We consider a patient from a given age, gender, and location who must select between three health insurance plans, each offered in two provider networks. Based on actual offerings by major insurers, we suppose that this individual faces the plan options described in table 5, all with an out-of-pocket maximum of $6,250.

TABLE 5.

Simulated Health Insurance Options

Plan Option	Deductible	Coinsurance	Network 1 Monthly Premium	Network 2 Monthly Premium
Bronze 60	$4,500	40%	$214	$221
Silver 70	$2,000	20%	$293	$272
Gold 80	$0	20%	$363	$375

We then simulate cost-of-care data for 10,000 of such individuals based on a logarithmic distribution of annual health-care expenditures approximating those of the age, gender, and location group assumed above. Simulated average annual out-of-pocket expenditures for each plan conform fairly closely to stated actuarial values (within 2.5 percentage points for each plan).

PLAN VALUE

We calculate individuals' values for each plan using their expected out-of-pocket expenditures for the year, annual premiums, and a simulated preference for one network over another. We assume that preferences are normally distributed and that the average consumer has no preference between the two networks. A consumer with preferences one standard deviation above the mean would be willing to pay an additional $20 per month to enroll in their preferred network. We then assume that individuals have on average moderate levels of risk aversion with moderate heterogeneity across the simulated sample (constant absolute risk aversion utility with coefficient of risk aversion mean .0006, standard deviation

.0008). To determine relative plan values, we calculate the difference in certainty equivalent between the selected plan and the lowest-valued plan offered.

FRICTIONS

The motivation for this exercise is that consumers may face imperfect information, inertia, or other frictions that lead them to make suboptimal health plan choices that do not maximize their plan value. We assume that each individual has a friction value for each plan, drawn randomly from a normal distribution with mean zero and standard deviation of $1,800. This means that, on average, consumers overestimate or underestimate their true value of a given plan by $150 monthly.

COMPARING SMART DEFAULT POLICIES

Out-of-pocket expenditures average $3,049, $2,193, and $1,293 for bronze, silver, and gold plans, respectively. If a default policy were to do nothing but default a patient of this demographic into the optimal plan for the average patient (having information only on age, gender, and state of residence), it would save her around 4 percent of her annual premium per year. In this case, the gold plan from the Network 1 plan would be the default plan for this group using only demographic information, as it the best option for around 47.5 percent of consumers. If the regulators were able to use past claims data to better predict expected health costs, the consumer could save 5.7 percent of her yearly premiums, on average, by participating in the default tailored plan. This assumes that the regulators are able to project expected health costs with a standard deviation of $300 around true expected costs. However, additional data also make it possible to implement a less-aggressive smart default policy, which defaults patients away from their chosen plan only if projected benefits surpass a set amount. In this simulation, a less-aggressive smart default policy would increase welfare on average while harming virtually none of the patients who are defaulted away from their chosen policy. For example, defaulting a patient to a new policy only if her projected benefit exceeds $400 results in an average benefit of 4.1 percent of annual premiums while causing only 5.6 percent of the sample to be defaulted to a less ideal plan than the one she had previously chosen.

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Acknowledgements

Endnotes

1. Statutory language: "(b) AMERICAN HEALTH BENEFIT EXCHANGES.—(1) IN GENERAL.—Each State shall, not later than January 1, 2014, establish an American Health Benefit Exchange (referred to in this title as an "Exchange") for the State that—(A) facilitates the purchase of qualified health plans."

2. CMS is currently making strides in providing deidentified access to Medicare claims, but the private claims data that are necessary to support non-Medicare exchanges remain far behind. Even the current CMS data provision policy limits access for private firms, resulting in tools developed by only a handful of entrenched players. Given the existing decision support, this has clearly not yielded the level of innovation necessary to overcome choice errors in the Medicare market.

3. Though providing a breakdown is an option, to overcome the kinds of choice errors we document above in which people weight different cost components differently even though they all represent actual dollars spent, a total out-of-pocket assessment can be highly effective.

4. In the context of the data infrastructure, it is likely that an effective smart default policy will require (i) detailed plan design information, (ii) detailed plan network information, and (iii) at least some individual-specific health data, either administrative- or user-provided. We go on to discuss how smart default policies can be adjusted as a function of the strength and limitations of a given exchange's data environment. Generally speaking, as data become deeper and better integrated, more-aggressive smart default policies are possible. As discussed in box 2, there are certainly rich enough data environments in exchanges that exist today for smart defaults to be actively considered.

5. To be clear, an individual can be made worse off by a smart default if the algorithm used to make the assignment does not capture her individual specific situation with sufficient granularity and she does not actively change to a better option. In any setting that relies on prediction there will be some measurement error (e.g., Amazon frequently recommends products that no one actually wants). In our setting, this is manifest in realization of health events that make the plan worse for an individual even though, given everything known when the choice was made, that was the best option for her.

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Highlights

There is substantial evidence of consumers miscalculating their health and financial risks when choosing health insurance, which often results in extra costs that can run into the hundreds of dollars. Evidence also documents consumers remaining in their selected health insurance plans, even as better and more cost-effective options become available. In addition, since federal and state governments often subsidize private health insurance, public outlays are much higher than they need to be. Ben Handel and Jonathan Kolstad of the University of California, Berkeley, offer two proposals to help consumers select the health insurance plan that is cost-effective and best aligns with their needs. They focus on those individuals enrolled in the federal and state-run insurance exchanges, including the ACA exchanges, Medicare Part D, and Medicare Advantage.

The Proposals

Introduce a Decision Support Tool with Personalized Recommendations. This tool would incorporate an individualized cost calculator, an assessment of risk, hospital and physician network information, and individual preferences.

Institute Smart Defaults. The exchange regulator would switch consumers from their current plan to a new plan if the new plan offered more value, minimal new risk exposure, and continuity of covered providers. Consumers would maintain the ability to switch out of the smart default plan to retain their current coverage or to select a different plan.

Benefits

These proposals would benefit the consumer, helping her to save up to hundreds of dollars each year. Federal and state governments could also save billions of dollars from the reduction in subsidies that results from better matches between consumers and their insurance plans.

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HEALTH MANAGEMENT ASSOCIATES

*Making Affordable Care Act
Coverage a Reality*
A National Examination of Provider Network
Monitoring Practices by States and Health Plans

PREPARED BY
KAREN BRODSKY, BARBARA MARKHAM SMITH AND DIANA RODIN

PREPARED WITH SUPPORT FROM THE
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Table of Contents

I. Summary of Key Findings and Recommendations

This qualitative study examines the standards and practices that state agencies and health plans use to ensure access to care in the period following the implementation of the Affordable Care Act (ACA). Based on evidence gathered through surveys of and interviews with key informants in state agencies and plans, the study explores the standards applied by commercial insurance regulators and Medicaid agencies and the practices actually employed by Medicaid managed care organizations (MMCOs) and Qualified Health Plans (QHPs) in Marketplaces to form provider networks and monitor performance. While the response sample is small, the information provided paints a picture of the range of standards and practices used and the challenges faced, which provides a basis for identifying gaps in current understanding and strategies and opportunities for developing best practices. The key findings and recommendations are set forth below.

Key Findings

1. **Network standards differ significantly between state insurance regulators and Medicaid agencies.** Consistent with their differing roles, state insurance regulators (referred to also as Departments of Insurance or DOIs) and Medicaid agencies differ significantly in the detail and number of standards for network adequacy. The relationship between Medicaid agencies and MMCOs is contractual – MMCOs are vendors of the Medicaid agency. Therefore, contractual provisions on network adequacy tend to be highly prescriptive. By contrast, DOIs serve as regulators to create the basic floors for market entry, primarily to avoid market disruptions. Their standards overall tend to be more general, with more permissive thresholds, and they are less directed to achieving optimal performance.

2. **Health plans report that they are exceeding state network standards.** Notwithstanding their different regulatory frameworks, both MMCOs and QHPs report that they exceed state standards, although the degree to which state standards are exceeded is reported to be much greater among QHPs. They report that they need to maintain these high levels of performance to be effective in competing for market share. It is unclear what role required accreditation for QHPs by independent quality review organizations plays in network formation, although the requirement does provide external standards and scrutiny beyond that provided by the DOIs.

3. **Primary Care Practitioners (PCPs) are defined broadly by states and health plans.** In defining what types of practitioners can be designated as PCPs, both DOIs and Medicaid agencies include a broad range of providers. Allied professionals such as nurse practitioners and physician assistants tend to be recognized as PCPs. MMCOs and QHPs mirror this inclusiveness.

4. **Provider-to-enrollee ratios and maximum travel time and distance (geo-access) standards vary widely.** Requirements regarding provider-to-enrollee ratios and geo-access standards vary widely, with geo-access standards having the widest variation. Regulators do not appear to have used a consistent methodology or approach to developing standards for measuring network adequacy – either in terms of geo-access or provider-to-enrollee ratios. The standards themselves reflect little consensus regarding optimal provider distribution based on geography or population. No effort appears underway to develop algorithms or formulas that apply local variables in a consistent way

to arrive at standards that reflect a reliable indication of access. Similar variation exists among QHPs and MMCOs in the standards adopted. Most surveyed QHPs report having more providers for their enrolled population than required by DOIs and using geo-access standards. Reporting MMCOs appear on average to have fewer providers to enrollees than the standards reported on average by Medicaid agencies. However, it is not clear that those plans with fewer providers to enrollees deviate from the actual contractual standards in their particular states. Some key informants question the degree to which these metrics provide insight into the "nitty gritty" of the actual availability of care when it is needed.

5. **Few states track provider network overlap across plans.** It is rare for regulators to take into account the multiplicity of plans with which providers contract (plan overlap) to evaluate actual provider capacity. Providers who serve patients in a large number of plans may have less capacity to serve patients in any one plan than is suggested by plan-specific provider to enrollee ratios. Only a small number of Medicaid agencies, MMCOs, and QHPs monitor total provider patient load and its consequent effects on patient wait-time, out-of-network utilization, and access by new patients. Most regulators limit the evaluation of provider capacity to an individual plan's provider network. DOIs universally fail to monitor plan overlap effects on provider networks.

6. **Essential Community Providers (ECPs) are an increasing option.** Some states have integrated into their general commercial market and Medicaid program Marketplace requirements to include ECPs in provider networks.

7. **After-hours appointment availability is still rare.** While 24/7 telephone availability to a provider is almost universally reported by plans and Medicaid agencies as a standard for network performance, after-hours in-person appointment availability remains on the sidelines of network planning for state agencies and plans. No DOIs and few Medicaid agencies require it.

8. **Many plans report covering out-of-network care provided by clinicians working at in-network facilities to protect consumers from having to pay for unintended out-of-network care.** While a majority of MMCOs and QHPs report addressing this issue, most Medicaid agencies and state insurance regulators do not. Some state insurance regulators report emerging legislative activity to protect consumers from out-of-network costs for in-network facility care.

9. **Member complaints are the most frequent but not the most reliable indicator of systemic network deficiencies.** In monitoring network structure and availability, DOIs, Medicaid agencies, QHPs, and MMCOs rely extensively on consumer complaints and surveys to flag problems. State insurance regulators report that while they rely on complaints, they find them to be poor indicators of problems, either because they represent only "the tip of the iceberg" or are distorted by provider efforts to encourage their patients to complain about proposed networks that do not include those providers. While not completely absent, little analysis of claims data such as emergency room, out-of-network, or specialist utilization occurs that might be early-indicators of difficulties in gaining access to in-network care.

10. **Many regulators are hampered by insufficient information technology (IT) to monitor networks.** Many **s**tate insurance regulators and Medicaid agencies report that they do not have the IT

resources necessary to automate monitoring activities and perform data analytics, a situation that impedes timely and accurate evaluation. This presents more of a challenge to state agencies than achieving adequate staffing levels. Some states are moving to increase their IT capabilities and are engaging partners in data collection efforts so as to have an independent source of information on providers and locations against which to compare plan network files.

11. **State insurance regulators report substantially increased oversight activity since the passage of the Affordable Care Act.** Some report the change as "dramatic" with "frenetic" levels of activity around the new plan designs and submissions required under the ACA. This increased activity responds to new levels of regulation regarding network adequacy and increased public scrutiny in an environment where having insurance is mandatory.

Key Recommendations

While the variety of practices and perceptions suggests there are many avenues to achieving more consistency in network standards and ensuring better access to care, the recommendations set forth below reflect the synthesis of experiences that provide evidence for approaches that are both useful and feasible.

1. **Monitor program-wide provider capacity.** Monitoring of provider total patient capacity and plan overlap should be implemented as a way to assess actual provider availability. If the monitoring process is to be effective, it must be based on program-wide standards (e.g., Medicaid managed care in one state) and cross-program standards (e.g., Medicaid managed care, the Marketplace and other insurance programs in one state) on provider capacity and a re-examination of the basis for determining provider-to-enrollee standards. On the other hand, this standard also must account for the benefits to consumers of continuity-of-care when providers participate in multiple networks so that consumers can move between plans while maintaining the same providers.

2. **Invest in network standards.** More investment is needed to develop network standards based on data to ensure that application of the standards will result in care being available when it is needed. This requires consensus on how to develop the data and build algorithms. More forums for collaboration among states and across coverage programs should be convened. This effort will provide useful information to state agencies that are struggling to develop appropriate metrics. It will also promote standardization of measures and practice, which will be useful to plans operating in multiple markets.

3. **Increase after-hours access.** Standards for after-hour appointments in primary care settings need to move from the frontier to the mainstream. This will require close collaboration with providers to develop the infrastructure and staffing organization to make complying with such standards feasible. Approaches used to establish Patient-Centered Medical Homes (PCMH) and access to telemedicine and urgent care centers could be used as models.

4. **Deploy data analytics.**

    a. More data analytics need to be employed to create "early-warning" flags for network availability problems, particularly the analysis of claims data to signal whether enrollees are

      resorting to emergency room and out-of-network care to deal with network access problems and to determine if specialty care is occurring in appropriate ratios to overall utilization.

    b. Enhanced data analytics need to be employed to determine the accuracy of provider network information and enable mapping of providers to evaluate access. This may entail developing more centralized data bases on providers across a state.

5. **Increase the state insurance regulator's role in network oversight.** Given the large number of newly insured people and the importance of ensuring the integrity of insurance products when people are mandated to purchase insurance, state insurance regulators may need to reevaluate their role to encompass more oversight of ongoing performance by plans.

II. Introduction and Research Objective

In recent years, the role of risk-based managed care in Medicaid has grown substantially, both in absolute terms as Medicaid continues its growth under the Affordable Care Act (ACA) and as a proportion of enrollees with public coverage as states bring more Medicaid sub-populations under the umbrella of managed care.[1,2] As a result, states increasingly rely on MMCO networks and monitoring of network adequacy to ensure access to care.

On a parallel track, over 10 million people have gained coverage in the individual commercial market in QHPs offered through the ACA Marketplaces. Access to care in the individual market in particular, therefore, largely depends on the network adequacy of QHPs. The ACA requires issuers of QHPs to maintain provider networks that are sufficient in number and types of providers to ensure that all services will be accessible to enrollees without unreasonable delay.[3] However, rather than being a primary role of the Marketplaces, monitoring provider networks in QHPs has been delegated largely to the state departments of insurance and their partners, a role historically included in the licensure process in many states. In addition, the Marketplaces require that QHPs have accreditation from independent quality review organizations, and quality rankings for QHPs begin in the Marketplaces in 2016. The extent to which these factors also drive network formation is unclear. These activities will provide an additional level of external standards and scrutiny.[4] Variation in network standards across states—and how states monitor health plans using these standards—has important implications for enrollees, providers, and insurers.

Ensuring provider network adequacy is fundamental to fulfilling the promise that Medicaid expansion and Marketplace coverage under the Affordable Care Act will lead to improved individual and population health. Federal Medicaid rules and the ACA prescribe floors for network adequacy in MMCOs and QHPs. However, previous studies suggest that access to providers varies considerably across states. This variation raises concerns among policymakers, advocates, and other stakeholders about the degree to which access to providers is adequate in the new QHP and MMCO networks serving the Marketplace and Medicaid populations.

In this report, Health Management Associates (HMA) examines the strengths and weaknesses of state and health plan network-monitoring activities in the Marketplace and Medicaid managed care expansion environment by identifying the barriers to effective oversight and efforts underway to

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[1] Howell E., Palmer A., Adams F. *Medicaid and CHIP Risk-Based Managed Care in 20 States: Experiences Over the Past Decade and Lessons for the Future.* Washington, D.C.: The Urban Institute, 2012.

[2] Smith V., Gifford K., Ellis E., Rudowitz R., Snyder L. *Medicaid in an Era of Health & Delivery System Reform: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2014 and 2015.* Washington, D.C.: The Henry J. Kaiser Family Foundation, 2014.

[3] 45 C.F.R. 156.230(a)(2).

[4] Centers for Medicare and Medicaid Services. Health Insurance Marketplace Quality Initiatives. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/Health-Insurance-Marketplace-Quality-Initiatives.html

Center for Consumer Information and Insurance Oversight, Centers for Medicare and Medicaid Services. *Final 2016 Letter to Issuers in the Federally-facilitated Marketplaces.* Washington, DC. February 20, 2015. https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2016-Letter-to-Issuers-2-20-2015-R.pdf

overcome those barriers. This report summarizes project findings and provides recommendations to improve standards and practices that promote dependable network monitoring. Appendix A includes summary tables with current network standards that reflect the variation seen across the industry.

III. Study Design

This project examines health plan provider network monitoring activities by state departments of insurance or similar regulators (DOI), Medicaid agencies, Marketplace plans, and Medicaid plans using a two-step methodology to identify: (1) the barriers to effective oversight and (2) efforts underway to overcome those barriers. In the first phase of the project, the study team reviewed the literature to understand the landscape of measures, standards, and practices. The second phase entailed a survey of key informants from insurance departments, Medicaid programs, and health plans to explore and update current practices, ongoing challenges, and successes. Following the survey, a subset of 12 respondents, evenly distributed among DOIs, Medicaid agencies, QHPs, and MMCOs, were selected for follow-up interviews to probe survey responses. The findings were then synthesized into a set of key findings and recommendations for network adequacy monitoring and compliance measures, standards, and practices.

Literature Review

An in-depth review of recent studies of provider network adequacy measures and standards served as the basis for the state and health plan survey to uncover what standards, measures, and monitoring activities are in place to maximize compliance with the standards. The review also examined:

- barriers to collecting, submitting, and analyzing timely, accurate, and complete provider network data; and

- efforts by states and plans to overcome these barriers.

It included gathering close to 40 existing standards and measures to form the basis for four distinct online survey tools developed to address the unique requirements and experiences of the state agencies responsible for monitoring network adequacy (DOIs and Medicaid agencies) and the health plans (QHPs and MMCOs) that participate in these markets. This research revealed considerable variation in the network adequacy standards and tools currently in use. It also allowed us to identify additional measures and recommendations that have been proposed. This review informed our survey tools, which are attached in *Appendix B.* Further, a complete bibliography of the literature reviewed to develop the survey tools has been provided in *Appendix C.*

Surveys and Interviews

This phase of the project entailed three discreet tasks: (1) selection of respondents for both on-line surveys and telephone interviews, (2) creation of on-line survey content, and (3) creation of the telephone interview guide.

Respondent Selection Process

The study team worked with HMA colleagues with state government and managed care backgrounds, Medicaid Health Plans of America (MHPA), and the Association for Community Affiliated Plans (ACAP) to identify subject matter experts (SMEs) who work on provider network monitoring activities within: a) DOI or Marketplace offices, b) Medicaid agencies, c) QHPs, and d) MMCOs. Some states manage Marketplace operations out of their insurance departments, while others have set up separate organizations. However, in most cases, the insurance departments themselves and their state partners

directly regulate provider networks. HMA did not survey insurance departments in the states with federally facilitated Marketplaces that CMS determined do not meet the network adequacy assessment standards in 45 C.F.R. § 156.230(a).[5]

Selection criteria prioritized MMCOs and QHPs with significant Medicaid or Marketplace market penetration. The study also took into account plan geographic distribution, organizational structure (including provider organizations and CO-OPs), plan participation in both Medicaid and Marketplace markets, and for-profit/nonprofit status.

On the basis of the survey responses, three respondents from each of the project study areas (DOIs, Medicaid agencies, QHPs, and MMCOs) were selected to participate in follow-up telephone interviews to explore responses and further identify best practices. Selection criteria for telephone interviews took into consideration states and plans that demonstrate well defined measures, standards, and monitoring practices or offer additional recommendations for standards and monitoring to adequately manage access to care.

Survey Instrument Content

Based on the literature review, HMA designed a master on-line survey tool with two surveys for departments of insurance staff and Medicaid agency staff, respectively. The surveys identified all measures, standards, and practices currently used to monitor QHPs and MMCOs. It further inquired into states' experiences with the existing measures; standards and monitoring practices; new measures, standards, and monitoring practices; and the processes for gathering and analyzing network information, monitoring challenges, and enforcing standards. Survey questions covered two key domains: a) thresholds for provider access standards and b) provider network monitoring practices.

The study team then developed a second on-line survey tool with two versions, respectively, for QHPs and MMCOs. This tool explored the measures, standards, and monitoring practices they use. It asked about their experience collecting, maintaining, analyzing and submitting the information to the states. It also examined their approaches to assessing network needs. How they address challenges, develop alternative strategies, and resolve chronic compliance issues were also explored. These questions were organized into the same two domains as the master survey for states: a) thresholds for provider access standards and b) provider network monitoring practices. To control for survey bias, HMA peer reviewed the survey structure and questions with staff experts who have experience in survey design and provider access.

HMA conducted the on-line surveys using Survey Monkey, a web-based survey service.

Interview Instrument Content

The telephone survey explored in more detail topics including: a) barriers in network monitoring; b) revisions made to network measures/standards to align with changes taking place in the delivery system; c) best practices to improve the integrity of network data files; d) the extent of collaboration

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[5] CMS requires that health plans in these states submit an access plan or current accreditation results to demonstrate network adequacy. Three states do not meet minimum QHP HMO network assessment standards (IN, LA, SC) and seven states do not meet minimum QHP non-HMO network assessment standards (IN, LA, MO, OK, SC, TN, WY).

between state agencies in their monitoring of QHPs and MMCOs; and e) other activities that play a supporting role in the efforts to maximize provider network monitoring activities to make access to care a reality for beneficiaries enrolled in a QHP or MMCO.

Response Rates

HMA surveyed the 39 state Medicaid agencies with known managed care programs,[6] 43 state-based, federally facilitated and partnership states whose state insurance departments monitor provider networks, and a representative mix of 30 MMCOs and 30 QHP carriers.[7] The 30 plans for each target group represent an estimated 9 percent of all MMCOs (332)[8] and 10 percent of all QHP carriers (286)[9]. Follow-up interviews were pursued with 12 respondents or 8 percent of the total respondent pool. Ultimately, 17 (44 percent) Medicaid agencies, 13 (30 percent) DOIs[10], 7 (23 percent) MMCOs, and 8 (27 percent) QHPs responded to the surveys. Eleven follow-up interviews were completed. This project received letters of support from MHPA and ACAP to help facilitate outreach with MMCOs.

Limitations

This study faced a number of limitations. While the response rates generally exceeded the expected response rate for on-line surveys, the sample remains small across all types of respondents. Moreover, it is not clear that the respondents are representative of the sample pool. For example, 76 percent of the DOI responses came from the 28 percent of states that operate state-based exchanges. In addition, most surveys had questions left unanswered. While it is plausible to assume that the failure to answer reflects an absence of standards or activity in that subject area, such a conclusion without confirming information would be speculative. Finally, surveys are necessarily dependent on the specific knowledge of the individual respondent, who may not have expertise on all aspects of the relevant standards and practices. This could affect response accuracy. Validation of survey responses is beyond the scope of this study. Notwithstanding these limitations, the information provided in the surveys and interviews provides a qualitative picture of practices and challenges—information that can be useful in formulating best practices and identifying barriers to ensuring access.

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[6] Kaiser Family Foundation, Medicaid MCO Enrollment, September 2014.
[7] QHPs may operate HMOs, PPOs and indemnity plans. For the purposes of this research, we limited the survey to HMO-type QHPs, which generally limit coverage to in-network providers.
[8] CMS Medicaid Managed Care Enrollment Report, 2011.
[9] ACAP report, "Overlap Between Medicaid Health Plans and QHPs in the Marketplaces: An Examination," December 13, 2013.
[10] Of the 13 DOI responses, four respondents reported that they do not regulate network adequacy for Marketplace QHPs.

IV. Principal Findings

The ways in which Medicaid agencies and DOIs regulate network adequacy and attempt to ensure access to care differ substantially from each other. In general, Medicaid agencies contract directly with MMCOs, which operate as vendors to the agencies. These contracts tend to be prescriptive regarding network formation and maintenance. DOIs, on the other hand, serve as external regulators of the market, so they review network adequacy by setting floors that must be met for licensure and for protecting consumers by ensuring product integrity and appropriate response to complaints. More recently, DOIs have intervened in situations where network disputes between health plans and health systems have caused large numbers of consumers to pay higher costs or lose access to longstanding providers of their care.[11]

External factors that affect the practices of plans are more likely to be an issue in the commercial market than the Medicaid market, although some arise in Medicaid as well. For example, starting in 2016, QHPs operating in the Marketplaces will be assigned quality rankings based on the result of consumer satisfaction surveys, as is now done for Medicare Advantage plans.[12] These quality rankings will help consumers make wise plan selections and likely will create additional incentives for plans to improve networks as they compete for market share. In addition, in some states, oversight of network adequacy is delegated to a partner agency, such as the Department of Health. The result is more fragmented processes for oversight, with some DOIs having insufficient knowledge of network performance.

QHPs report that they often exceed specific state standards regarding the structure and sufficiency of the network. They do this in response to market demands, particularly to the demands of larger employers and to accreditation requirements imposed by NCQA, URAQ or others, which must be met to gain QHP certification to participate in Marketplaces. Despite more prescriptive and consistent regulatory requirements for MMCOs, the survey findings show that these plans also report that they exceed state standards in several ways.

The specific findings by topic of inquiry are set forth below.

Scope of Primary Care Provider Definition

In general, where the definition of primary care providers is addressed, both Medicaid agencies and state insurance regulators tend to be inclusive in specifying the types of providers considered to be primary care providers. However, DOIs are less likely to address this issue, with approximately 16 percent of respondents failing to answer the question. The overall pattern of inclusiveness is reflected in the networks developed by plans in Medicaid and the Marketplace. While this inclusiveness is generally considered desirable in promoting access to care, particularly in provider shortage areas, and facilitating

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[11] http://www.upmc.com/about/why-upmc/changing-health-insurance-market/Pages/default.aspx

[12] Center for Consumer Information and Insurance Oversight, Centers for Medicare and Medicaid Services. *Final 2016 Letter to Issuers in the Federally-facilitated Marketplaces*. Washington, DC. February 20, 2015. https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2016-Letter-to-Issuers-2-20-2015-R.pdf

Centers for Medicare and Medicaid Services. *Overview of 2015 QRS Requirements for QHP Issuers.* October 2014. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/Downloads/Issue-Brief-4-QRS-Requirements-for-Issuers.pdf

shorter wait times to care, the inclusion of ancillary providers may mask a shortage of physician care. The specific breakdown of responses by type of respondent is reflected in Table 1-1 in Appendix A.

Medicaid agency requirements and MCOs. The majority of, and in some cases all, Medicaid agency respondents indicate that their agency recognizes the following types of providers as primary care practitioners:

- general practitioners
- family practitioners
- internists
- pediatricians
- nurse practitioners
- physician assistants
- OB/GYN

It is worth noting that 25 percent of Medicaid agency respondents report that their agency does not recognize physician assistants as primary care providers. Mid-level practitioners are becoming an accepted addition to primary care practice by Medicaid agencies, although states have different scope-of-practice guidelines, which, in those areas that place greater constraints on scope of practice, can limit access to primary care, particularly in underserved areas.[13]

In addition to recognizing the commonly accepted primary care provider types, eight Medicaid agencies responded that they recognize specialty providers as PCPs on a case-by case-basis for enrollees whose care would be more appropriately managed by a specialist. Two Medicaid agencies identified gerontologists as PCPs. One Medicaid agency recognized certified nurse midwives as PCPs. Another Medicaid agency recognized primary care teams consisting of residents and a supervising faculty physician under contracts with teaching facilities or teams that include certified mid-level practitioners.

The majority of responding Medicaid MCOs recognized as primary care practitioners the same types of providers as Medicaid agencies with the exception of physician assistants. Two responding Medicaid MCOs permit specialists who agree to fulfill the obligations of a PCP in that role on a case-by-case basis. It is noteworthy that 75 percent of responding Medicaid agencies accept physician assistants (PAs) in the role of PCP while just half of the Medicaid MCOs do so. This may reflect guidelines that limit scope of practice for MCOs in some states despite the Medicaid agencies' acceptance of this provider type for primary care.

State insurance regulators and QHPs. A clear majority of respondent state insurance regulators recognize all of the identified providers as PCPs. Interestingly, more states recognize nurse practitioners and physician assistants (75 percent) than include internists as PCPs (64 percent). General practitioners, family practitioners, and pediatricians are the most recognized PCPs (83 percent). The generally high rate of inclusion of nurse practitioners and physician assistants and lower rate of internist inclusion suggest that the perception of what constitutes primary and specialty care may drive the definition.

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[13] LeBuhn R., Swankin D., *Reforming Scopes of Practice, A White Paper,* Citizen Advocacy Center, Washington, DC, July 2010.

While DOI standards are somewhat less inclusive than Medicaid agencies, QHPs universally regard general practitioners, family practitioners, internists, and pediatricians as PCPs. OB/GYNs are included as PCPs among 63 percent of QHPs. Allied health professionals are also frequently included. Nurse practitioners are included by 88 percent of responding QHPs while PAs are included by 50 percent. The relatively lower inclusion of PAs may relate to state scope-of-practice rules that expanded the scope of practice for nurse practitioners. The relatively new emergence of PAs may not yet be captured by legislation.

Network Sufficiency: Provider-to-Enrollee Ratios, Program-Wide Provider Capacity, Geographic Access, Accepting New Patients, Hospital Admitting Privileges

Network sufficiency standards vary widely across markets and states, and the use of one metric by a state (e.g., provider-to-enrollee ratios) does not necessarily mean that other standards such as geographic access are also used by that state. Because the NAIC is in the process of developing an update to its Managed Care Plan Network Adequacy Model Act, some interview informants indicated that their states are waiting for that process to unfold before revising standards. One informant also indicated that the model legislation will result in more uniformity rather than the current wide variation from state to state.[14] One state insurance regulator expressed concern that network sufficiency metrics do not necessarily provide insight into whether plan members have access to the specific services needed and covered in their benefit packages.

Use of Provider-to-Enrollee Ratios

Provider-to-enrollee ratios have been a common approach to assess a network's capacity to serve a plan's enrollees, or as one Medicaid Director said "to reassure the public that the [Medicaid managed care program] can handle the workload and that enrollees have choices." However, in issuing the recently proposed Medicaid Managed Care rules, CMS invited public comment on the use of provider-to-enrollee ratios as a measure of network adequacy and indicated that CMS believes that "time and distance standards present a more accurate measure of the enrollee's timely access to covered services than provider-to-enrollee ratios." CMS noted wide variation in the standards. This survey found that provider-to-enrollee ratios are most commonly set for PCPs, pediatricians, and OB/GYNs, as well as dentists. In addition, one Medicaid agency includes advanced practice nursing specialists in their provider-to-enrollee ratio measurement requirements. The extent to which established ratios are based on current data regarding the number and geographic distribution of providers and population is unknown. Tables 2-1 and 2-2 in Appendix A show provider-to-enrollee ratios and a breakdown of provider-to-enrollee ratio responses by type of respondent.

Medicaid agencies and MCOs. The majority of Medicaid agencies require that contracting MCOs track provider-to-enrollee ratios to monitor provider network supply. Yet, one-third of Medicaid agency respondents do not require the use of ratios. Given the wide range of responses as to the number of

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[14] http://www.naic.org/committees_b_rftf_namr_sg.htm. National Association of Insurance Commissioners, Network Adequacy Model Review (B) Subgroup, Regulatory Framework (B) Task Force

enrollees allowed per provider type, the basis for the ratios may reflect geographic variations in provider availability, but the basis for the variation was not volunteered.

Only half of the Medicaid MCOs respondents use provider-to-enrollee ratios to assess network capacity. One Medicaid MCO reported that it uses ratios to track network capacity for high volume specialties — behavioral health providers, cardiologists and orthopedists — although this was not a specific requirement of the Medicaid agency respondents.

State insurance regulators and QHPs. Only 33 percent of responding state insurance agencies require that plans meet provider-to-enrollee ratios. Only two state respondents specified the ratios, and those applied to PCPs only. For both, the state required that the plan have one PCP per 2000 enrollees. By contrast, 88 percent of responding QHPs report using provider-to-enrollee ratios. Moreover, the ratios used are substantially lower than required by insurance regulators, with a median ratio of one PCP to 600 patients. Health plan respondents interviewed report that network formation is driven by market demands, particularly the demands of large employers, which are reflected in the QHP networks of those carriers. They indicated that competitive pressures required them to ensure greater provider availability.

Program-Wide Provider Capacity

Government agencies and plans rarely take into account the total numbers of patients and providers in an area in determining whether ratio standards are satisfied. Rather, the ratios are evaluated *by plan* without considering the multiplicity of plans in which contracted providers participate. This oversight may result in an over-statement of provider capacity. A provider that serves patients enrolled in multiple plans is not as readily available to the enrollees of a particular plan as one who serves enrollees in only that one plan. This overstatement may account for access barriers, such as practices closed to new patients or long wait-times for routine appointments—barriers that could not be predicted on the basis of plan-specific ratios. On the other hand, overlap of providers among plans may facilitate continuity of care because consumers can often maintain a relationship with providers when they change plans, either during open enrollment periods or when they move between Medicaid and the Marketplace. If regulators are to be effective in setting standards to ensure access, they must take into account the fact that providers participate in multiple plans, which affects their availability. This issue is apparently not being addressed in most states; if it were to be addressed, the process could trigger changes in the metrics used to measure network adequacy.

Medicaid agencies and MMCOs. While Medicaid agencies hold individual MCOs responsible for meeting pre-determined ratios of providers to enrollees, the survey findings show that just 22 percent monitor provider overlap between plans or the total number of enrollees assigned to individual providers program-wide. Among responding Medicaid MCOs, 14 percent monitor the overall capacity of providers in their network. Medicaid agencies should explore ways to track program-wide provider access to close the monitoring gap that exists with respect to provider overlap among plans.

Capacity conundrum, an example.

A Medicaid agency contracts with four MCOs. Each MCO contracts with 100 PCPs. Seventy percent of the PCPs belong to all four of the MCOs' provider networks, and most of the PCPs are at 50 percent of their maximum capacity for each MCO (e.g., where the maximum capacity cannot exceed 1 PCP to 2,000 enrollees). That puts most of these PCPs over the maximum capacity permitted across the program. Yet, their global capacity is not being tracked by the majority of Medicaid agencies. MCOs can track only their own network's capacity and do not have easy access to network data for the other MCOs. However, states have complete network files of all MCOs. States would only become aware that network capacity for a provider type may be problematic after the fact, when enrollees complain about difficulties scheduling appointments.

State insurance regulators and QHPs. No state insurance regulators report having standards to address total provider capacity or the effects of provider overlap among plans. Unlike Medicaid agencies, DOIs may not maintain QHP provider lists and may rely on other tools, such as mapping or attestation by the plans that they have met standards, to indicate provider sufficiency. To determine accurate provider capacity may require state agencies to gather and maintain different types of documentation or delegate the determination of total patient census to the QHP, accompanied by reporting requirements. Among responding QHPs, 29 percent report monitoring the total capacity of providers in networks across plans to accurately evaluate network sufficiency and availability to members.

Maximum Distance and Time Standards to Provider Locations

Maximum distance and time standards, commonly referred to as "geo-access" standards, serve as a primary method for demonstrating that a provider network is sufficient to serve the number of enrollees in a health plan. Maximum distance and time standards are typically used by Medicaid agencies to meet the federal requirement that the "geographic location of providers and Medicaid enrollees, considering distance, time travel" are satisfied by Medicaid MCOs.[15]

As with provider-to-enrollee ratios, the maximum distance and time standards vary from state to state and from market sector to market sector. CMS gives states flexibility in setting the distance and time standards in recognition of the regional variables that can have an impact on this standard. In the proposed Medicaid managed care regulations released on June 1, 2015, CMS asked for public comment as to whether it should define the actual distance/time measures set by states. The wide variation in geo-access standards reflected in the surveys confirms the findings of a previous report from OIG[16] and suggests the importance of local conditions in the development of geo-access standards, although it is not clear how these standards are developed.

Medicaid agencies and MCOs. While 85 percent of Medicaid agencies indicate they use travel distance standards, only 60 percent of surveyed MCOs used travel time standards. Travel distance for primary care ranged from an average of 21 miles for an urban PCP to 30 miles for a rural or frontier pediatrician or OB/GYN. Travel distance standards for specialists were greater, averaging 37 miles in urban settings

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[15] 42 CFR 438.206(b)(1)

[16] Suzanne Murrin, *State Standards for Access to Care in Medicaid Managed Care.* Department of Health and Human Services, Office of Inspector General, September 2014.

and 50 miles on the frontier. Maximum travel time standards were similarly variable, averaging 28 minutes to an urban PCP and 60 minutes to a rural or frontier specialist. Fewer MCO respondents completed the travel distance survey question (60 percent) or the travel time question (40 percent). Yet variation in geo-access standards remains evident from this small sample. The significance of the range in responses for maximum distance and time travel cannot be overstated. As discussed above, the basis for the extent of the variation needs further exploration. Refer to Tables 3-1 to 3-2 in Appendix A for a complete review of the survey findings.

State insurance regulators and QHPs. The responses to these questions exhibit wide variation consistent with the overall pattern. For travel distance, only 17 percent of DOIs indicate that they have such a standard. Most failed to answer the question. Travel time elicited more responses, with a majority (58 percent) indicating that they do not have such a standard. Where travel time standards applied, travel time varied depending on the type of provider, from 20 minutes for a pediatrician in an urban area to 60 minutes for a specialist in both rural and urban areas. The basis for specifying the same travel time to a specialist in both urban and rural areas is unclear. One insurance regulator in a Western state noted in an interview that distance standards, in particular, are less meaningful when they do not take into account terrain such as the need to cross mountains or deal with other geographic barriers to care. He recommended developing alternative requirements in areas where significant geographic barriers exist, such as the availability of alternative modes of transportation on a reliable and fully-transparent basis (e.g., urgent or emergency helicopters).

While 75 percent of QHPs respondents appear to use geo-access standards, the standards vary widely depending on the type of provider and locale of the member. For example, the average travel distance used for an urban member to a PCP, pediatrician, or OB/GYN is 24 miles, while the average travel distance to a specialist for a rural member is 55 miles. Interestingly, there is less variation in travel time (compared to travel distance); the average time for travel for both rural and urban members for most types of providers is 50 minutes.

Accepting New Patients

Federal Medicaid managed care regulations require that states and contracting organizations identify providers that are not accepting new patients.[17] This information is typically made available in the provider directory, which is available in print or on plan websites. Medicaid agencies and state insurance regulators differ in their approaches to this issue. Unlike Medicaid agencies, state insurance agencies generally do not impose a standard for notification regarding access by new patients or open practice requirements, and plans again report creating their own standards.

Medicaid agencies and MCOs. Just 23 percent of responding Medicaid agencies require that the minimum percentage of network PCPs accepting new patients be between 80 percent and 99 percent. Similarly, just 25 percent of Medicaid MCO respondents use minimum thresholds of 80 percent to 99 percent or 60 percent to 89 percent to track the PCPs in the network that are accepting new patients. While this measure is not a common requirement according to survey results, federal Medicaid managed care regulations require that health plans provide information to new enrollees on the

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[17] CFR §438.10

network providers who are not accepting new patients, information which is typically made available in the provider directory. This would suggest that MCOs are tracking and can identify which providers (PCPs *and* other provider types) are accepting new patients on an ongoing basis. Tracking acceptance of new patients could alert plans when the primary care network is reaching capacity, requiring corrective action.

State insurance regulators and QHPs. None of the DOI respondents provide standards or monitor the percentage of network providers accepting new patients. Insurance regulators have typically not used such a detailed measure of access. By contrast, two-thirds of responding QHPs report having such a standard for their contracted providers. Of the small number of QHPs (4) who provided specific information on their standards, two reported requiring at least 80 percent of their PCPs to accept new patients, while one plan reported requiring all their PCPs to accept new patients. An interview informant noted that these requirements to accept new patients are more likely to apply to HMOs than PPOs.

Hospital Admitting Privileges

Historically, the Medicare managed care program required that primary care providers (PCP) have admitting privileges in at least one hospital in an MCO network so that the PCP could visit patients during an inpatient stay.[18] This requirement was similarly adopted by Medicaid MCOs and has made it possible for MCO enrollees to receive continuous care and remain in-network when they need inpatient care. Yet, this requirement can raise challenges for some health plans during their recruitment of PCPs. If the health plan is unsuccessful in contracting with the only hospital in town, the majority of PCPs in that region will not have admitting privileges at out-of-town hospitals and thus will be unable to serve as the admitting physician for patients who would need to use another hospital to remain in-network. As a result, most PCPs in this situation will not contract with the health plan, which would limit the plan's primary care network in that geographic region. Moreover, in the last ten to 15 years, the majority of hospitals employ or contract with hospitalists who assume the primary responsibility for providing in-patient care and render hospital privileges by the PCP less important.[19] These trends appear to be reflected in survey responses of Medicaid and state insurance agencies.

Medicaid agencies and MCOs. In keeping with the hospitalist trend, close to three-quarters of responding Medicaid agencies do not require that PCPs have hospital admitting privileges, but three-quarters of the Medicaid MCOs do have that requirement. In a follow-up telephone interview with one northeast urban MCO, we learned that despite the hospitalist trend, this requirement has made sense because their MCO is owned by a hospital system anxious for the business, and as a practical matter, many of their enrollees regard the hospital as their source of health care. This MCO believes the hospital admitting requirement may be a legacy of the past now that "low income people [who relied on hospitals] have more choices." Yet in a telephone interview, another MCO does not require that PCPs have hospital admitting privileges because: a) it is not a state requirement, and b) this could cause self-imposed network gaps since a growing number of PCPs do not affiliate with hospitals. The MCO

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[18] CMS.gov, Outreach & Education, Physician Regulatory Issues Team, "Hospital Privileges for Physicians Working with Medicare Managed Care."

[19] Knowledge@Wharton, *Hospitals Hiring Physicians: Why the Trend is on the Rise.* Wharton University of Pennsylvania, February 12, 2014.

representative asserted that hospitalists can manage patient care across many specialties, whereas PCPs do not have acute care training.

State insurance regulators and QHPs. The overwhelming majority of state insurance regulator respondents reported that they have no standards regarding PCP hospital admitting privileges**.** This does not appear to be a change from long-standing practice. The declining number of PCPs with hospital privileges suggests that adoption of such a standard is unlikely.[20] Notwithstanding these trends, 86 percent of responding QHPs require their PCPs to have hospital admitting privileges, again suggesting that competitive pressures play a role in network management in the Marketplaces.

Considerations of Circumstances: Appointment Wait Times, After-Hours Access, Continuity of Care, Unplanned Out-of-Network Coverage

While ratio, geo-access, and similar standards provide objective metrics of network structure, they do not necessarily provide evidence that patients can see the clinicians they need when they need them. Standards directed to appointment wait times, after-hours access, continuity of care, and coverage for facility-based care may provide better windows on the patient experience and serve as markers for network sufficiency.

Appointment Wait Times

Medicaid agencies and MCOs. The true test of provider access occurs when an enrollee calls to schedule an appointment. Eighty-one percent of Medicaid agencies respondents require that Medicaid MCOs ensure their providers adhere to standard wait time limits between scheduling an appointment and being seen by a practitioner. Similarly, 87 percent of Medicaid MCO respondents follow an appointment wait time standard. The reported Medicaid agency and MCO maximum appointment wait time measures varied considerably for certain types of appointments. Well care and routine care appointment wait time standards had the most variation, and initial pre-natal care appointments had significant wait time variation, albeit smaller in range. This variation may be attributed in part to differences in each Medicaid program's definitions of the terms "well care" and "routine" and to provider supply and geography. Appointment wait time measures for urgent and emergency care were more consistent for Medicaid agency and MCO respondents. The basis for variations in appointment wait-times based on the patient's condition is unclear; the variations do not appear to be tied to consensus regarding clinical appropriateness.

State insurance regulators and QHPs. Half of the state insurance regulators report having no standard for appointment wait times. Among those with standards, the wait times varied from 7 to 30 days for well care and routine care to 1 to 2 days for urgent care. By contrast, all of the responding QHPs impose limits on providers regarding the wait times for appointments. Typically, well care appointments waiting periods are limited to 30 days while urgent care wait time is limited to 2 days. No wait times are permitted for emergency care. Interestingly, none of the QHPs appear to have standards for wait-times for the first pre-natal care visit. See Tables 4-1 and 4-2 in Appendix A for details on appointment wait time standards.

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[20] Ibid.

After-Hours Access

Notwithstanding the public focus on reducing emergency room utilization, the existence of benchmarks for after-hours access to care at provider offices or clinics remains on the frontier of provider adequacy policies in both Medicaid and the private market. Most of the attention focuses on 24/7 telephone access.

Medicaid agencies and MCOs. The majority of Medicaid agency respondents require that MCO PCPs offer 24/7 telephone access and a 24 hour nurse call line for enrollees. The same held true for Medicaid MCO responses. Still, 35 percent of agency respondents require that PCPs offer appointments after-hours, and 18 percent require that specialists do so. Yet, just one MCO respondent requires PCPs to offer appointments after hours, and no MCOs require that their specialists do so. This uncovers a possible discrepancy between state requirements and health plan practice that deserves further inquiry.

State insurance regulators and QHPs. After-hours access has generally not attracted the attention of insurance regulators. Only 10 percent of respondents have standards that address the availability of after-hours appointments, and only 20 percent require 24/7 telephone access either to a PCP or nurse call line. By contrast, all QHPs report requiring PCPs to have 24/7 telephone access. In addition, all QHPs report maintaining a 24-hour nurse call-in line. However, no QHP reports requiring providers to offer after-hours appointments. One interview informant noted that expanded hours were included in the plan's initiative to substantially expand the development of Patient-Centered Primary Care Medical Homes (PCMH). After-hours access is an element assessed by NCQA for provider practices seeking PCMH certification. As providers increasingly seek PCMH certification, health plan enrollees may experience improved access to after-hours primary care services.[21]

Refer to Chart 1 in Appendix A for a comparative review of after-hours provider access standards by survey group.

Continuity of Care for Enrollees in Transition

With the increasing emphasis on management of chronic disease, attention has focused on the need for continuity of care to complete a course of treatment, facilitate patient self-management, and ensure appropriate transitions to new providers.[22] This attention to chronic disease and population health management has been particularly important in Medicaid, although it is an important factor in the commercial market as well.[23]

Medicaid agencies and MCOs. Over eighty percent of Medicaid agencies require their health plans to cover the services of new enrollees who are in active treatment with an out-of-network provider for a minimum period of time to maintain continuity of care in the enrollee's treatment. Similarly, all of the Medicaid MCO respondents provide continuity-of-care coverage for a minimum period of time. This

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[21] NCQA Patient-Centered Medical Home 2011, PCMH 1: Enhance Access and Continuity, Element B.

[22] Ladapo J., Chokshi D. *Continuity of Care for Chronic Conditions: Threats, Opportunities, And Policy*, Health Affairs Blog, November 18, 2014. http://healthaffairs.org/blog/2014/11/18/continuity-of-care-for-chronic-conditions-threats-opportunities-and-policy-3/

[23] Arora, R., Boehm J., Chimento L., Moldawer L., Tsien, C., *Designing and Implementing Medicaid Disease and Care Management Programs: A User's Guide*. Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services. March 2008. http://www.ahrq.gov/sites/default/files/publications/files/medicaidmgmt.pdf

access requirement provides important protections for newly enrolled Medicaid beneficiaries who are mandatorily enrolled with a plan, existing Medicaid enrollees who transition from Medicaid fee-for-service into managed care, and health plan enrollees who transfer from one Medicaid MCO to another.

Medicaid agencies and MCOs report variation in the number of days that enrollees can continue using an out-of-network provider. Medicaid agency and MMCO standard timeframes generally range from 60 to 90 days, although one MMCO provides coverage for up to 120 days. In addition, three Medicaid agencies require that the continuity of care period be customized based on the enrollee's care plan. While just a few Medicaid agencies report that they customize the continuity of care standard to enrollee needs, this approach may become more common in states that implement managed long term services and supports (MLTSS). Individuals receiving MLTSS use services frequently, sometimes daily, and could pose greater risk for physical or mental deterioration or injury if there are disruptions to their care.

In pre-survey discussions with Medicaid MCOs leaders, the researchers learned that MCOs will frequently recruit non-participating providers of new enrollees to preserve the patient-provider relationship, maintain continuity of care, and expand network capacity, especially during times of program growth; yet non-participating providers may not have interest in becoming a provider in that plan's network or in accepting that plan's reimbursement rates.

State insurance regulators and QHPs. Illustrating the pattern of less engagement by state insurance regulators in details of plan operations, only about 27 percent of responding states confirm having a standard for continuity of care. Only one specified the standard (60 days). By contrast, all responding QHPs have a standard for allowing new members in active treatment to continue care with existing providers. For most (67 percent), coverage for out-of-network providers to continue active treatment is permitted for 90 days.

See Table 6 in Appendix A for a complete review of continuity of care standards in Medicaid and Marketplace programs.

Unplanned Out-of-Network Coverage

While federal regulations require Medicaid health plans to cover emergency services provided in out-of-network (OON) settings, other use of OON providers is typically limited to services that have been prior authorized by the health plan, such as when an enrollee needs to see a type of specialist that is not in the plan's network or is not available within a reasonable distance from their home.[24] Yet, enrollees may inadvertently receive services from OON providers under circumstances that are beyond their control. This may happen when the enrollee goes to an in-network inpatient or outpatient facility, and providers in that setting are not in the health plan's network. There are many reasons for this fragmented coverage. Emergency room physicians, anesthesiologists, or radiologists may be employed by independent contractors to the hospital who do not contract with the hospital's payers. This enables those providers to operate out-of-network and engage in balance billing to hospital patients. In other

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[24] 42 CFR 438.206(4).

words, the hospitals do not require their provider contractors to contract with hospital payers.[25] Other scenarios occur in private medical practices as well. The provider group may be under contract with the health plan, but a new provider who recently joined the practice is not yet credentialed and recognized by the health plan's claims payment system.[26]

Unplanned OON care raises network access concerns since patients may not have adequate information to choose an in-network provider, or an in-network provider may not be available in the in-network facility as a result of facility contracting strategies.

While a small portion of regulators responding to the survey require unplanned OON coverage, most health plans report providing coverage for services in these instances, exceeding regulatory requirements to ensure that enrollees experience appropriate access to care.

Medicaid agencies and MCOs. More than half of the responding Medicaid agencies do not require MCOs to cover unplanned OON services (53 percent), while 35 percent require that unplanned OON care be covered. By comparison 86 percent of Medicaid MCO respondents report that they cover the services of unplanned OON care. One MCO that does not cover unplanned OON services explained in a telephone interview that, while they do not cover these services in order to control costs, their state has new legislation that will now require this type of coverage, depending on the circumstances. Another MCO explained that all in-network inpatient care must be authorized during the hospital admission, which would limit the times when unplanned OON services would occur.

State insurance regulators and QHPs. Less than a quarter of states have policies that address these issues, although respondents interviewed report that the scope of the problem is increasing. One interview respondent reports that this issue is now being considered by the state legislature and would probably have a regulatory/legislative response. Notwithstanding the increased visibility of network access problems occurring at in-network facilities and news reports regarding high out-of-pocket costs for care at in-network facilities, 83 percent of QHP respondents report providing coverage for such care.[27] One QHP interview respondent reports substantially increased efforts to contract with independent contractor provider groups at hospitals and to flag in the provider directory the OON status of some hospital providers (e.g., radiologists). Fully integrated provider-sponsored plans report that this problem does not arise in their QHPs. As with other elements of network adequacy, the visibility of problems and market perceptions appear to drive network formation strategies among QHPs.

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[25] Siegel-Bernard, T. *Out of Network, Not by Choice, and Facing Huge Health Bills*. The New York Times. New York, NY, October 2013. <http://www.nytimes.com/2013/10/19/your-money/out-of-network-not-by-choice-and-facing-huge-health-bills.html

[26] Rosenthal, E. *After Surgery, Surprise $117,000 Medical Bill From Doctor He Didn't Know*. The New York Times. New York, NY September 2014. http://www.nytimes.com/2014/09/21/us/drive-by-doctoring-surprise-medical-bills.html?_r=0

[27] Herman, B. *Billing squeeze: Hospitals in middle as insurers and doctors battle over out-of-network charges.* Modern Healthcare. August 2015. http://www.modernhealthcare.com/article/20150829/MAGAZINE/308299987

Provider Directories

Provider directories have been considered unreliable sources of provider availability, as documented in numerous articles in recent years and by OIG in December 2014.[28] Given the challenges health plans have had in providing up-to-date information about provider availability, this survey asked states about how frequently they require updating both printed and online provider directories. It also asked the health plans to report how frequently they update both printed and online provider directories in practice.

Medicaid Agencies and MCOs

Online provider directories. Twenty-nine percent of Medicaid agencies require MCOs to update online networks monthly, and 18 percent require updates whenever changes occur to the network. These requirements reflect recognition of that fact that consumers should be able to expect that online content is up to date. In keeping with this expectation, 71 percent of MCOs report updating the online provider directory whenever changes occur to the network. In achieving such reported promptness, MCOs exceed state requirements, demonstrating their commitment to providing enrollees with the most current information available.

Forty-one percent of state respondents reported a required frequency of "Other" to the question regarding update frequency, which was a surprising finding, since the survey offered a full range of frequencies (annually, semi-annually, quarterly, monthly, whenever changes occur to the provider network, other). The structure of the survey did not make it possible to determine the experience in the states that responded "Other." During one Medicaid agency telephone interview, the Medicaid Director described provider networks as a "moving target," addressing the challenges for Medicaid MCOs in publishing network directories.

Printed provider directories. Medicaid agencies were more varied in their requirements for updating printed provider directories. The responses were equally distributed across three frequencies: annually, semi-annually, and quarterly. As with online directories, the largest number of state respondents cited "Other" (29 percent) as the frequency required to update printed provider directories. MCO respondents were more consistent, with 37 percent indicating that printed provider directories are updated annually, and another 37 percent indicating "Other" to the question about frequency of updates. A smaller percentage print updated directories quarterly (25 percent). Medicaid MCOs generally provide enrollees with printed copies of provider directories on request since the information becomes out of date so quickly.

State insurance regulators and QHPs. About half of the responding states indicate that they have a standard that specifies how often provider directories must be updated. However, the overwhelming majority failed to report the standard. The most commonly specified standard was monthly. Only a handful of the DOI respondents differentiated between online and print standards, with about half of those requiring monthly updates to the online directory compared to 20 percent for print directories. States generally required less frequent updates for print directories, although 40 percent answered

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[28] Daniel R. Levinson, Inspector General. *Access to Care: Provider Availability in Medicaid Managed Care.* Department of Health and Human Services, Office of Inspector General, December 2014.

"Other," making the time frames uncertain. One state reports efforts by the DOI to provide consumers with continuously updated information on all providers in the state and on the plans with which they contract. It partners with the state university to collect provider data and maintain a current database on all providers, which is available on its website. Consumers can use this to cross-check the provider information provided in the plan directory. In addition, the DOI cross-checks this data base with the provider files submitted by plans to validate network adequacy and directory accuracy.

All QHPs report updating their provider directories at standard intervals, although the practices differ for print and online directories. One-third of responding QHPs report that they update online directories on a monthly basis, while two-thirds of respondents do not specify the interval. For print directories, where respondents specify the update intervals, about half report semi-annual updates with others reporting annual and monthly updates.

Coverage of services by providers erroneously listed in the provider directory. Failure to cover services obtained as a result of provider network directory errors can lead to substantial unplanned costs for beneficiaries and difficulties in organizing care.

Medicaid agencies and MCOs. The majority of states do not require that Medicaid MCOs cover eligible services rendered to enrollees who saw out-of-network providers erroneously listed in the latest provider (53 percent). Yet, 75 percent of MCO respondents report that they will cover eligible services in this instance. Medicaid MCOs are exceeding state access requirements and affording protections to enrollees through this practice.

State insurance regulators and QHPs. Of the state insurance regulators who responded to this question, only 30 percent indicated they required coverage of services by providers erroneously listed in the directory, while 83 percent of QHPs report covering eligible services under these circumstances.

Innovations: Inclusion of Essential Community Providers and Alignment of MMCO/QHP Networks

Inclusion of Essential Community Providers (ECP)
Continuity of care is an issue for individuals whose coverage arrangements change frequently and, in particular, for individuals whose incomes fluctuate such that their health care coverage alternates repeatedly between Medicaid and the Marketplace. Otherwise known as "churn," this movement on and off coverage and from health plan to health plan can disrupt provider-patient relationships and lead to poor continuity and potential gaps in care. The survey explored whether Medicaid and Marketplace health plan networks were similarly following the Affordable Care Act (ACA) requirement of Marketplace Qualified Health Plans (QHP) to include 30 percent of ECPs[29] in their networks. Essential Community Providers are defined by CMS as providers that serve predominantly low-income, medically underserved individuals. While this is a requirement of QHPs, it is not an explicit requirement of Medicaid MCOs.

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[29] CMS, *Frequently Asked Questions on Essential Community Providers*, May 13, 2013.

Medicaid Agencies and MCOs. The survey found that 69 percent of responding Medicaid agencies encourage their plans to replicate the carrier's QHP ECP network in the Medicaid MCO network when the carrier has a QHP. Twenty-four percent of the Medicaid agency respondents do not know whether they encourage ECP replication, and an additional 18 percent do not encourage this. Yet all MCO respondents adopted the Marketplace ECP network standards. The survey findings confirm that even individuals who decide to change from one carrier to another will experience some network overlap and continuity of care if they rely on ECPs. One Medicaid agency reported that an analytics team is looking into how to project and track the movement of Medicaid enrollees into the Marketplace and back to Medicaid.

State insurance regulators and QHPs. One-third of state respondents report that they have adopted a standard for inclusion of ECPs in provider networks that mirrors the Federal standard for QHPs. This is particularly significant for individual and small-group markets in general since 70 percent of surveyed states report that they apply the same network adequacy standards for all plans in the individual and small-group markets, regardless of their status as QHPs in the Marketplace.30 This alignment should operate to improve overall access to ECPs. As discussed above, QHPs are required to conform to the federal standard for ECP inclusion in order to received QHP certification to operate in the Marketplaces. Fully integrated plans report difficulty in meeting the alternative ECP standard that applies to them, particularly in rural areas.

Alignment of MCO/QHP Networks
The rise of the Marketplaces and the subsidized coverage they provide enable lower-income people to sustain coverage as they churn between Medicaid and the individual market. In response to the ability of lower-income people to obtain coverage when they leave Medicaid, many MCOs offer QHPs in the Marketplaces to capture the churn population and ensure their continued enrollment when and if they return to Medicaid.[31] As a result, substantial market incentives exist for MCOs offering QHPs to align the networks of the plans to provide continuity of care for the population that moves between Medicaid and the Marketplace and entice members to remain enrolled with the same parent organization. On the other hand, having the same network in both markets may stress overall provider capacity as discussed above. Most Medicaid and state insurance regulators have not encouraged or set policy for Medicaid MCO/QHP network alignment.

Medicaid and MCOs. Just 17 percent of Medicaid agencies responded that they have encouraged Medicaid MCO and QHP network replication, and they report significant overlap in the contracted Medicaid MCO and QHP provider networks. In contrast, 86 percent of Medicaid MCOs have taken steps to align their complete provider network with that of the QHP. The findings are reassuring and indicate that most enrollees will experience continuity of care when they change health care coverage sources, provided they transfer to a health plan operated by the same carrier. A few Medicaid MCOs and Medicaid agencies explained in telephone interviews their reasons for aligning their Medicaid MCO

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[30] Farris, M., McCarty S., *ACA Implications for State Network Adequacy Standards*. Robert Wood Johnson Foundation. August 2013. <http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2013/rwjf407486
[31] "Overlap Between Medicaid Health Plan and QHPs in the Marketplaces: An Examination", ACAP, December 13, 2013; Medicaid MCO telephone interviews.

networks with their QHP networks. Medicaid agencies assumed Medicaid MCOs would leverage the contractual relationships with providers in pre-existing networks to form a QHP network. Medicaid MCOs pursued alignment: 1) to provide seamless health care to families as their circumstances change so they can stay with one carrier through all stages of life; and 2) because network alignment offered administrative convenience and sustained enrollment to the plans**.**

State insurance regulators and QHPs. Two-thirds of the QHP respondents report that they also operate MCOs. State insurance agencies universally do not require network alignment between MCOs and QHPs and believe that the market incentives are sufficient to sustain alignment. Because the QHPs in this case have the same parent organization as the MCOs, their responses align with the MCO practices on this issue. Accordingly, QHPs universally align plan networks between Medicaid and Marketplace plans.

Monitoring Practices: Data Sources, Common Monitoring Challenges, Enforcement

Because of the contractual nature of the relationship between the Medicaid agency and the MCO, the monitoring of MCO network adequacy universally resides with the Medicaid agency. In the regulatory context of the private market, 63 percent of respondent state insurance regulators monitor network adequacy, while a third report that monitoring functions reside in the Marketplace operating in their states. The remaining respondents report that partner agencies monitor QHP provider networks, most often Departments of Health. None delegates responsibility for monitoring network adequacy to third parties such as accreditation organizations.

Network Adequacy Data Sources

Medicaid agencies and MCOs. All Medicaid agency respondents rely on the CAHPS surveys and on enrollee complaints and grievances to identify potential network deficiencies. Eighty-one percent track the total number of complaints about network access received by the state's call center, and 94 percent review MCO reports on the number of enrollee complaints about network access. Other common data sources and metrics include the use of call center reports (76 percent) and emergency room utilization rates (71 percent). Less than half of the Medicaid agencies track encounters by category of service to assess underutilization, a metric that might indicate that enrollees are experiencing barriers or delays in scheduling appointments. Just 18 percent of Medicaid agencies track the proportion of out-of-network encounters to total encounters as a network deficiency metric. When out-of-network activity is higher in one MCO than other MCOs in the program, or than previous experience, it may serve as an indicator of a network deficiency.

As with the Medicaid agencies, contracting MCOs rely on several sources of information to monitor the adequacy of their provider networks. The most widely used data source comes from enrollees through CAHPS surveys and from enrollee complaints and grievances. All Medicaid MCO respondents report using these resources to identify network problems and also rely on complaints received by both the MCO and state agency. Other reported popular sources of information include tracking emergency room utilization rates (86 percent), call center reports (67 percent), tracking the proportion of out-of-network encounters to total encounters (67 percent) and tracking encounters by category of service to assess

underutilization (57 percent). The survey responses suggest that Medicaid MCOs may rely on a larger set of metrics to monitor their networks than Medicaid agencies do.

In addition to these data sources and metrics, the Medicaid agency respondents offered other sources of information for monitoring network access:

- provider complaints
- changes in enrollee "Level of Care"
- inpatient admission and readmission rates
- prior authorization rates
- provider suspensions and terminations
- review of monthly provider file
- monthly geo-access analysis
- secret shopping
- annual network analysis by the contracted external quality review organization

None of the MCO respondents offered additional metrics for identifying potential network deficiencies.

State insurance regulators and QHPs. The overwhelming majority of responding states (89 percent) report reviewing a QHPs entire network file submission against agency standards. While none of the respondents actually delegates responsibility to accrediting organizations, over half (56 percent) use accreditation by independent organizations in accessing ongoing compliance. By far, member complaints and grievance reports constitute the major data sources for network monitoring; 90 percent of state respondents report tracking this information. Call center reports and CAHPS surveys are relied on to a much lesser extent (22 percent). State insurance regulators rarely or never use encounter or utilization data as a marker for access problems. However, as discussed previously in the section on provider directories, one state has developed its own database of providers and uses it to cross-check the network composition of QHPs.

While QHPs report using claims and utilization data to a much greater extent (60 percent) than DOIs, QHPs also rely heavily on consumer-initiated activity—e.g., complaints/grievances, call center reports, and CAHPS surveys—to flag network adequacy problems. All QHPs report using consumer-initiated metrics to identify network deficiencies. The importance of the CAHPS surveys in QHP quality rankings may also contribute to plan reliance on this data.

Common Challenges in Network Monitoring

Provider networks are challenging to monitor because of the volume of information that must be continuously gathered, documented, maintained and analyzed. State insurance regulators report more major and moderate challenges than Medicaid agencies. Participants in follow-up interviews report that provider networks are "moving targets" whose composition changes on an ongoing basis, further complicating oversight. One state insurance regulator interview informant reports network composition changes, including information about provider location and hours, of 8 percent monthly. They also note that standards by their nature are broad and may not reflect the "nitty gritty" of the challenges faced in ensuring access.

The survey sought to identify the top network monitoring challenges for Medicaid agencies and contracting MCOs. Respondents ranked a list of challenges by level of difficulty. Complete State agency and health plan challenges in network monitoring by order of magnitude are illustrated in Charts 2-1 and 2-2 in Appendix A.

Medicaid agencies and MCOs. Medicaid agencies most commonly considered network monitoring a moderate or minor challenge, with a smaller portion of respondents reporting major challenges. Monitoring and identifying network adequacy problems on an ongoing basis was ranked as a moderate challenge by 41 percent of Medicaid agency respondents, while having an adequate number of qualified staff and good IT infrastructure was a moderate challenge for 35 percent of respondents. Twenty-four percent of Medicaid agency respondents reported that obtaining complete, accurate and timely information on network participation from MCOs was a major challenge. A smaller percentage of states reported a lack of IT infrastructure and inadequate staffing and as a major challenge (18 percent and 6 percent, respectively).

The greatest network monitoring challenge for MCOs is obtaining complete, accurate, and timely information from providers (85 percent). Educating consumers about the use of in-network providers is a major challenge for 33 percent of MCOs. During an interview, one Medicaid agency representative reported that many enrollees do not read the information MCOs distribute to them about provider networks because they believe "I have Medicaid – I can go anywhere." Other major/moderate challenges for MCOs in monitoring their networks are lack of IT infrastructure to automate or facilitate monitoring and reconciling updates to credentialing records, provider directories, and contracts (71 percent).

One Medicaid MCO interviewee explained that IT support is evolving. He said they need to rely on "superb customization to make up for the lack of administrative dollars." This MCO reprocesses a lot of provider network data because the information is received in many ways from providers.

State insurance regulators and QHPs. The most significant challenges for state insurance regulators are monitoring network adequacy on an ongoing basis (56 percent), lacking adequate IT infrastructure to automate monitoring processes (44 percent), and having adequate staffing levels (33 percent). One state reported being in the process of updating its IT capabilities. Somewhat surprisingly, difficulty obtaining network files from QHPs or educating consumers regarding the use of in-network providers did not emerge as significant challenges for most state insurance regulator respondents.

QHPs, on the other hand, tend to cite obtaining accurate information from providers as a major challenge (50 percent). One interview participant reports great difficulty keeping data current. For example, in a spot check conducted by the plan of information on 20 providers, none of the location information for any of the providers was correct. She further noted recent changes in QHP strategies to monitor networks. Pressure from regulators, legislators, and members has spawned much more proactive oversight by plans to ensure data accuracy as opposed to previously passive engagement, waiting for notifications from providers. However, the responding QHPs do not generally engage in direct monitoring activities. For example, one-third make scheduled office visits, and none conducts secret shopper calls.

Reconciling updates to credentialing records, provider directories, and provider contracts represents a moderate challenge for 50 percent of plans, as does having adequate IT infrastructure. Interestingly, consistent with state insurance regulator responses, educating consumers on in-network use is not regarded as a significant challenge by most plans.

Enforcement

Having standards is an essential ingredient in bringing life to general requirements to ensure that networks are sufficient to meet the needs of the enrolled population. However, whether standards are enforced and how deficiencies are addressed may ultimately affect the level of effort by plans in ensuring access to care. Again, the contractual versus regulatory relationship of the state agency and the plan appears to result in relatively more enforcement activity by Medicaid agencies. However, as described below, this activity is not robust in either sector. Both Medicaid agencies and state insurance regulators express a preference for "working with" plans to resolve difficulties. Plans demonstrate a reluctance to be proactive in discerning network performance issues by their providers.

Medicaid and MCOs. Medicaid agency survey respondents use requests for corrective action (59 percent) to enforce provider network regulatory requirements. Less than half of Medicaid agencies reduce the number of new-enrollee auto-assignments to non-complying MCOs; one Medicaid agency reports that it closes enrollment completely to MCOs that are out of compliance with provider network standards. Other enforcement actions are rarely or never used. More than 82 percent of Medicaid agencies rarely or never assess liquidated damages or withhold a portion of the capitation payment from the MCO, although one Medicaid agency reports that it assesses fines, another type of financial penalty. A complete analysis of survey findings on enforcement are in Table 5 in Appendix A. One Medicaid MCO interviewee took a proactive approach with its network and recently introduced value-based provider reimbursements to incentivize providers to improve the accuracy of network information.

State insurance regulators and QHPs. Most state insurance regulators failed to respond to the question on enforcement activities. Of those that provided information, most rarely apply sanctions to non-compliant plans. Only 25 percent of respondents use corrective action plans. Restricting enrollment or imposing financial penalties does not occur. In interviews, respondents indicated that they prefer to work with the plan to resolve difficulties, an approach that they report to be effective.

Similar to state insurance regulator approaches, all QHPs rely on engagement with providers to meet network performance standards, primarily using training and education. They also report employing outreach in those cases where problems with specific providers have been identified. Some plans (40 percent) report offering incentives to providers to meet network performance standards.

V. Discussion

The findings suggest a fundamentally different relationship between Medicaid agencies and MCOs on the one hand and insurance regulators and QHPs on the other. While the structure of the differences (vendor vs. licensed carrier) would seem obvious, it appears to have resulted in very different practices in the Medicaid and Marketplace sectors. Medicaid MCO contracts tend to be much more prescriptive and employ standards across almost all domains of inquiry. As a result, while MCOs report exceeding state standards, the "daylight" between MCO performance and Medicaid agency requirements is less significant than the discrepancy between DOI standards and QHP practices. In addition to the vendor relationship, this level of oversight may also reflect the fact that the Medicaid program serves highly vulnerable populations enrolled in closed network plans who typically have fewer health care choices than individuals enrolled in the commercial market.

By contrast, insurance departments and Marketplaces are providing floors that determine who can participate in the market. Their role is more limited to making sure the market is doing what it is supposed to do. Therefore, network adequacy issues tend to emerge as consumer protection issues around product integrity, premium value, and market disruption. The equation between health insurance and access to care is an emerging phenomenon with which state insurance regulators are starting to grapple. The value of insurance in an environment where having it is mandatory adds another imperative to that equation.

Issues around how to define meaningful access to care still lack consensus, particularly around ratios, geo-access, and provider availability. There do not appear to be fully substantiated bases for the variation. While local conditions appear to dictate some of the variation, algorithms or other approaches that could take local variables into account to achieve more standardized strategies do not appear to be under consideration. This is particularly apparent in the failure to develop standards for total provider capacity or plan overlap among providers. While plan-specific ratios may seem appropriate, the nearly-universal failure to measure and include plan overlap (and determine how much total provider capacity is optimal) in the calculation of ratios may account for long wait-times for appointments, out-of-network utilization, emergency room utilization, closed practices, and other challenges that directly affect the patient experience.

Also apparent is the effect of the Marketplaces and the regulated competitive environment in which QHPs operate. The requirements for quality certification that includes network adequacy standards from entities like the National Committee on Quality Assurance and URAQ impose a level of regulation that operates between state insurance regulators and QHPs. The quality rankings that include consumer satisfaction will begin in 2016 and guide consumer selection of plans, adding another factor to the competition for market share among QHPs in the Marketplaces. Similarly, in the updated Medicaid managed care regulations published in the Federal Register for public comment on June 1, 2015, CMS has proposed to begin using a star rating system to rank Medicaid MCOs. These regulatory incentives combined with the somewhat greater ability of QHP consumers to exercise choice and benefit from the long-standing power of the employer market as the basis for network composition in the individual commercial market also may drive the disparity between state standards and reported performance. The role of these factors merits further exploration.

VI. Key Recommendations

While the variety of practices and perceptions suggests there are many avenues to achieving more consistency in network standards and ensuring better access to care, the recommendations set forth below reflect the synthesis of experiences that provide evidence for approaches that are both useful and feasible.

1. **Monitor program-wide provider capacity.** Monitoring of provider total patient capacity and plan overlap should be implemented as a way to assess actual provider availability. If the monitoring process is to be effective, provider-to-enrollee ratios must be based on program-wide standards (e.g., Medicaid managed care in one state) and cross-market standards (e.g., Medicaid managed care, the Marketplace, and other insurance programs in one state). This will entail a re-examination of the basis for determining provider-to-enrollee standards. On the other hand, this standard also must account for the continuity-of-care benefits of having providers in multiple networks so that consumers can move between plans while maintaining relationships with the same providers.

2. **Invest in network standards.** More investment is needed to develop network standards based on data to ensure that application of the standards will result in care being available when it is needed. This requires consensus on how to develop the data and build algorithms. More forums for collaboration among states and across coverage programs should be convened. This effort will provide useful information to state agencies that are struggling to develop appropriate metrics. It will also promote standardization of measures and practice, which will be useful to plans operating in multiple markets.

3. **Increase after-hours access.** Standards for after-hour appointments in primary care settings need to move from the sidelines to the mainstream. This will require close collaboration with providers to develop the infrastructure and staffing organization to make complying with such standards feasible. Approaches used to establish Patient-Centered Medical Homes (PCMH) and access to telemedicine and urgent care centers could be used as models.

4. **Deploy data analytics.**

    a. More data analytics need to be employed to create "early-warning" flags for network availability problems, particularly the analysis of claims data to signal whether enrollees are resorting to emergency room and OON care to deal with network access problems and to determine if specialty care is occurring in appropriate ratios to overall utilization.

    b. Enhanced data analytics need to be employed to determine the accuracy of provider network information and enable mapping of providers to evaluate access. This may entail developing more centralized databases on providers across a state.

5. **Increase the state insurance regulator's role in network oversight.** Given the large number of newly insured people and the importance of ensuring the integrity of insurance products when people are mandated to purchase insurance, state insurance regulators may need to reevaluate their role to encompass more oversight of ongoing performance by plans.

Appendix A. Summary tables and charts

Table 1-1. Scope of Primary Care Provider definition -- provider types recognized as PCPs by survey respondents

Common Primary Care Provider Types[32]	RESPONSE GROUP			
	Medicaid Agency	Department of Insurance	Medicaid MCO	Qualified Health Plan
General Practitioners	x	x	x	x
Family Practitioners	x	x	x	x
Internists	x	x	x	x
Pediatricians	x	x	x	x
Nurse Practitioners	x	x	x	x
Physicians Assistants	x	x	-	x
OB/GYNs	x	x	x	x
Less Common Primary Care Provider Types				
Specialty providers	x	-	x	-
Gerontologists	x	-	-	x
Certified nurse midwives	x	-	-	-
Family medicine with OB		-	-	x
Primary care teams with residents and supervising faculty physician	x	-	-	-

Table 2-1. Provider-to-enrollee ratio usage

	Percentage of State and Plan Respondents that use Enrollee To Provider Ratios			
	State Agencies		Health Plans	
	Medicaid Agency	State Insurance Department	Medicaid MCO	Qualified Health Plan
Yes	65%	33%	50%	88%
No	30%	58%	50%	0%
Don't Know	5%	8%	0%	13%

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[32] Common primary care provider types are those provider types for which the majority of respondents reported as recognized to serve enrollees as primary care providers. Less common primary care provider types are those recognized to serve as a primary care provider in fifty percent or fewer respondents.

Table 2-2. Median provider-to-enrollee ratio benchmarks

Provider/ Region		Median Member to Provider Ratio Benchmark			
		Medicaid		Marketplace	
		State Medicaid Managed Care Program*	Medicaid Managed Care Organizations	State Insurance Regulators**	Qualified Health Plans
PCP	Urban	1,500	2000	2000	600
	Rural	1,500	2000	2000	600
	Frontier	2,000	2000	None Provided	None
Pediatrician	Urban	1,500	2,000	None Provided	600
	Rural	1,500	2,000	None Provided	600
	Frontier	1,750	2,000	None Provided	None
OB/GYN	Urban	1,500	2,000	None Provided	525
	Rural	1,500	2,000	None Provided	525
	Frontier	1,750	2,000	None Provided	None Provided
Dentist	Urban	1,750	2,000	None Provided	None Provided
	Rural	2,000	2,000	None Provided	None Provided
	Frontier	1,500	None Provided	None Provided	None Provided
Other Provider Types					
Orthopedics	Urban	None Provided	None Provided	None Provided	3,000
	Rural	None Provided	None Provided	None Provided	3,000
	Frontier	None Provided	None Provided	None Provided	None Provided
General Surgery	Urban	None Provided	None Provided	None Provided	3,000
	Rural	None Provided	None Provided	None Provided	3,000
	Frontier	None Provided	None Provided	None Provided	None Provided
Ears, Nose, and Throat specialist	Urban	None Provided	None Provided	None Provided	3,000
	Rural	None Provided	None Provided	None Provided	3,000
	Frontier	None Provided	None Provided	None Provided	None Provided
Cardiology	Urban	None Provided	None Provided	None Provided	5,000
	Rural	None Provided	None Provided	None Provided	5,000
	Frontier	None Provided	None Provided	None Provided	None Provided
Dermatology	Urban	None Provided	None Provided	None Provided	5,000
	Rural	None Provided	None Provided	None Provided	5,000
	Frontier	None Provided	None Provided	None Provided	None Provided
Gastroenterology	Urban	None Provided	None Provided	None Provided	5,000
	Rural	None Provided	None Provided	None Provided	5,000
	Frontier	None Provided	None Provided	None Provided	None Provided

Provider/ Region		Median Member to Provider Ratio Benchmark			
		Medicaid		Marketplace	
		State Medicaid Managed Care Program*	Medicaid Managed Care Organizations	State Insurance Regulators**	Qualified Health Plans
Ophthalmology	Urban	None Provided	None Provided	None Provided	5,000
	Rural	None Provided	None Provided	None Provided	5,000
	Frontier	None Provided	None Provided	None Provided	None Provided
Psychiatrist	Urban	None Provided	None Provided	None Provided	5,000
	Rural	None Provided	None Provided	None Provided	5,000
	Frontier	None Provided	None Provided	None Provided	None Provided
Behavioral Health provider	Urban	None Provided	None Provided	None Provided	3,000
	Rural	None Provided	None Provided	None Provided	3,000
	Frontier	None Provided	None Provided	None Provided	None Provided
High volume specialists	None specified	None Provided	None Provided	None Provided	10,000

Table notes:

1. *Qualified Health Plans do not distinguish between urban and rural settings as evidenced by the same enrollee to provider ratios for both types of geographic areas.*

2. *The Medicaid Managed Care Organization responses were skewed downward by lower than expected provider-to-enrollee ratios of one state in New England.*

3. *The differences in ratios offered in responses were negligible across the four survey groups.*

4. *As evidenced by the table, differences in Medicaid agency responses for ratios between urban and rural areas are relatively small. The maximum urban/rural difference was 500 enrollees per provider.*

5. *For state insurance regulators, at least one respondent noted that the enrollee to provider ratio for all physician types was "at least 1 per 1,200 enrollees"*

6. ** State Medicaid Managed Care program respondents reported that ratios for specialties vary by type of specialty. Advanced practice specialty nursing ratios similarly vary and at least one respondent provided a ratio of 1 to 100.*

7. *** State insurance regulator responses noted that one New England state differs from the provided figures in that it employs Medicare Advantage Network Calculations for its provider networks.*

Table 3-1. Maximum distance benchmark ranges and most frequently used benchmarks by provider type and region

Provider/Region		Maximum Distance Benchmark Range and Most Frequently Used			
		Medicaid		Marketplace	
		Range	Most Frequent	Range	Most Frequent
PCP	Urban	5 – 30	30	5 – 60	5, 15, 20*
	Rural	10 – 120	30	15 – 60	60
	Frontier	10 – 120	10, 30*	None	None
Pediatrician	Urban	5 – 35	30	5 – 60	5
	Rural	10 – 120	30	15 – 75	60
	Frontier	10 – 120	30	None	None
OB/GYN	Urban	5 – 30	30	5 – 60	5
	Rural	15 – 75	30	25 – 75	60
	Frontier	10 – 75	30	None	None
Dentist	Urban	5 – 90	30	10 – 90	None
	Rural	10 – 90	60	35 – 90	None
	Frontier	10 – 90	None	None	None
Specialist	Urban	5 – 75	30	10 – 90	10
	Rural	15 – 75	60	30 – 90	30
	Frontier	60 – 90	60	None	None
Acute care hospital	Urban	10 – 60	30	10 – 60	30
	Rural	15 – 60	30	15 – 60	60
	Frontier	90	None	None	None
Pharmacy	Urban	2 – 60	2	2	None
	Rural	5 – 60	30, 60*	15	None
	Frontier	60 – 75	60	None	None

* Provider and region types with more than one mileage distance benchmark had benchmark distances that were reported with equal frequency.

Table 3-2. Maximum time benchmark ranges, and most frequently used benchmarks by provider type and region

Provider/Region		Maximum Time Benchmark Range and Most Frequently Used Ranges			
		Medicaid		Marketplace	
		Range	Most Frequent	Range	Most Frequent
PCP	Urban	8 – 30	30	20 – 30	20
	Rural	15 – 60	30	30 – 60	None
	Frontier	30	30	None	None
Pediatrician	Urban	8 – 50	30	20 – 50	None
	Rural	15 – 75	30	50 – 60	None
	Frontier	30	30	None	None
OB/GYN	Urban	8 – 50	30	20 – 50	None
	Rural	15 – 75	30	50 – 60	None
	Frontier	30	30	None	None
Dentist	Urban	30 – 60	30	50	None
	Rural	30 – 75	60	None	None
	Frontier	None	None	None	None
Specialist	Urban	30 – 60	30	50 – 60	None
	Rural	30 – 60	60	50 – 60	None
	Frontier	30 – 60	None *	None	None
Acute care hospital	Urban	30 – 60	30	20 – 30	30
	Rural	30 – 60	30	30 – 60	None
	Frontier	30	None*	None	None
Pharmacy	Urban	15 – 60	30	None	None
	Rural	30 – 60	30	None	None
	Frontier	None	None	None	None

*There were too few responses to establish a "Most Frequent" time benchmark.

Table 4-1. Appointment wait time standard usage

	Percentage of State and Plan Respondents that use Appointment Wait Time Standards			
	State Agencies		Health Plans	
	Medicaid Agency	State Insurance Department	Medicaid MCO	Qualified Health Plan
Yes	81%	40%	88%	100%
No	19%	50%	13%	0%
Don't Know	0%	10%	0%	0%

Table 4-2. Appointment wait time standards in minutes by survey group

Appointment Type	Appointment Wait Time Standards in Days by Survey Group							
	Medicaid Agency		Medicaid MCO		State Insurance Department		Qualified Health Plan	
	Range	Most Frequent	Range	Most Frequent	Range	Most Frequent	Range	Most Frequent
Well care	10 – 84	30	10 – 90	10	15	None[33]	7 – 30	30
Routine care	7 – 84	30	10 – 90	10, 14[34]	10 – 120[35]	None	7 – 30	14
Urgent care	0 – 2	2	1 – 2	1	2	2	1 – 2	1
Emergency care	0 – 2	0	0 – 1	0	0	None	0 – 1	0
Initial pre-natal care	10 – 30	10, 14	10 – 42	14	None[36]	None	None	None

---

[33] None indicates that there were too few responses to establish a "Most Frequent" appointment wait time standard.

[34] Frequencies that include two data points occurred with equal frequency in survey responses.

[35] 120 represents an outlier among responses which otherwise ranged between 10 – 15 days.

[36] None indicates that there were too few responses to establish an appointment wait time standard "Range".

Table 5. Enforcement actions by Medicaid agencies and state insurance regulators

Enforcement Actions	Enforcement Actions by State Regulators							
	Medicaid Agency				State Insurance Department			
	Often	Sometimes	Rarely	Never	Often	Sometimes	Rarely	Never
State agency requests Corrective Action Plan of the MCO or QHP	24%	35%	18%	24%	25%	13%	50%	13%
State agency reduces the number of new enrollees auto-assigned to the MCO or restricts enrollment to the QHP	6%	41%	18%	35%	0%	13%	25%	63%
State agency assesses liquidated damages from the MCO or QHP	12%	6%	41%	41%	0%	0%	13%	88%
State agency withholds a portion of the capitation payment from the MCO*	6%	12%	18%	65%	–	–	–	–
States agency uses other penalties	0%	12%	24%	65%	0%	17%	17%	67%

* This question was only posed to state Medicaid agencies, which contract with MCOs. State insurance regulators do not contract with Marketplace carriers.

Table 6: Use of continuity of care time standards in Medicaid managed care and Marketplace programs

Continuity of Care Time Standards	Medicaid	Marketplace
60 days	25%	13%
90 days	35%	50%
120 days	5%	13%
Customized to care plan	20%	0%
Other	15%	25%

Chart 1. After-Hours provider access standards

Use of After Hours Provider Access Requirements

Plans are required to offer a 24 hour nurse call line
- Qualified Health Plans: 100%
- State Insurance Departments: 20%
- Medicaid MCOs: 88%
- State Medicaid Agencies: 82%

PCPs are required to offer 24/7 telephone access
- Qualified Health Plans: 100%
- State Insurance Departments: 20%
- Medicaid MCOs: 88%
- State Medicaid Agencies: 71%

Specialists are required to offer appointments after-hours
- State Insurance Departments: 10%
- State Medicaid Agencies: 18%

PCPs are required to offer appointments after-hours
- State Insurance Departments: 10%
- Medicaid MCOs: 13%
- State Medicaid Agencies: 35%

Legend: ■ Qualified Health Plans ■ State Insurance Departments ■ Medicaid MCOs ■ State Medicaid Agencies

Chart 2-1. Common challenges in network monitoring for Medicaid and Insurance Regulator respondents

Common Challenges in Network Monitoring for Medicaid and Insurance Regulator Respondents

Y-axis: % Indicating Major and Moderate Challenge

Challenge	State Insurance Department	Medicaid Agency
Obtaining complete, accurate, and timely information on network participation from QHPs/MCOs	44.44%	52.94%
Having adequate numbers of qualified staff to perform network analysis	77.78%	41.17%
Lacking IT infrastructure to automate or facilitate monitoring	88.89%	52.94%
Monitoring and identifying network adequacy problems on an ongoing basis	77.78%	58.83%
Educating consumers regarding the use of in--network providers	88.89%	23.53%
Other	25%	5.88%

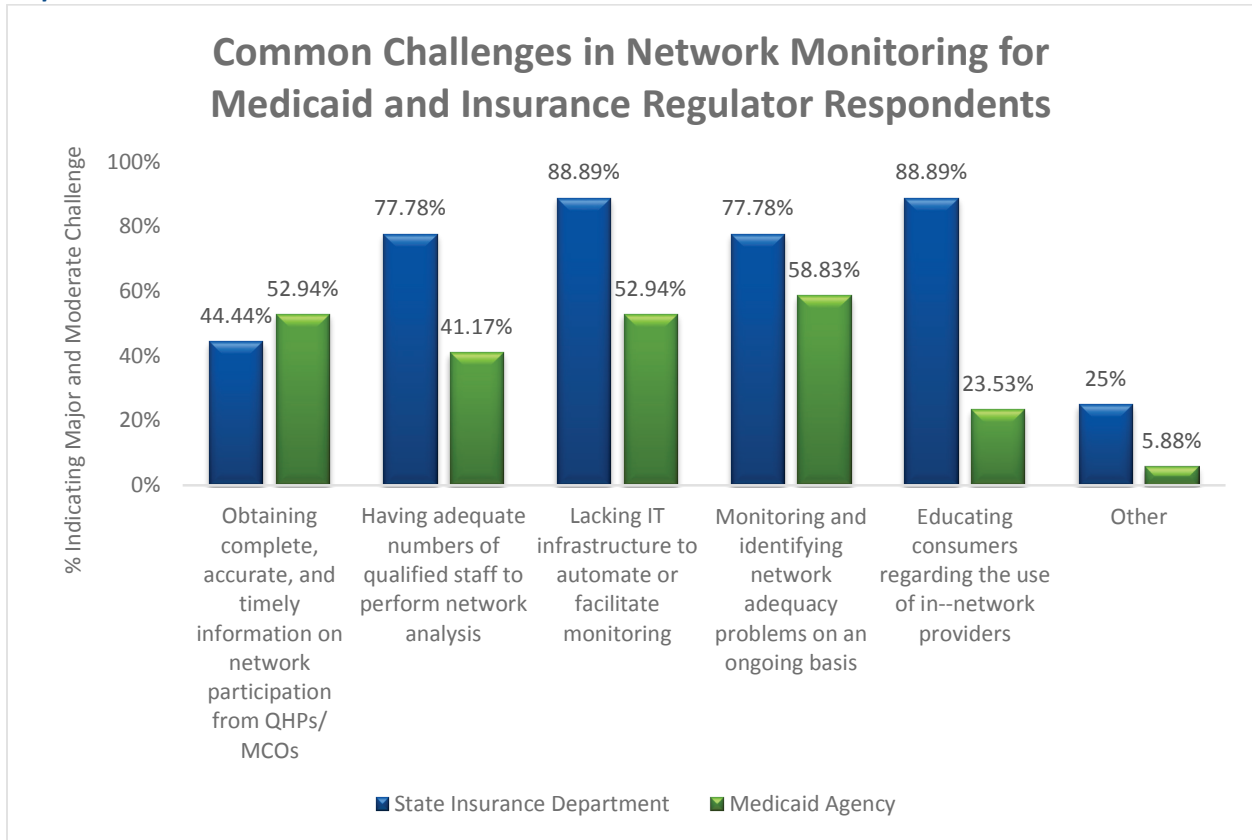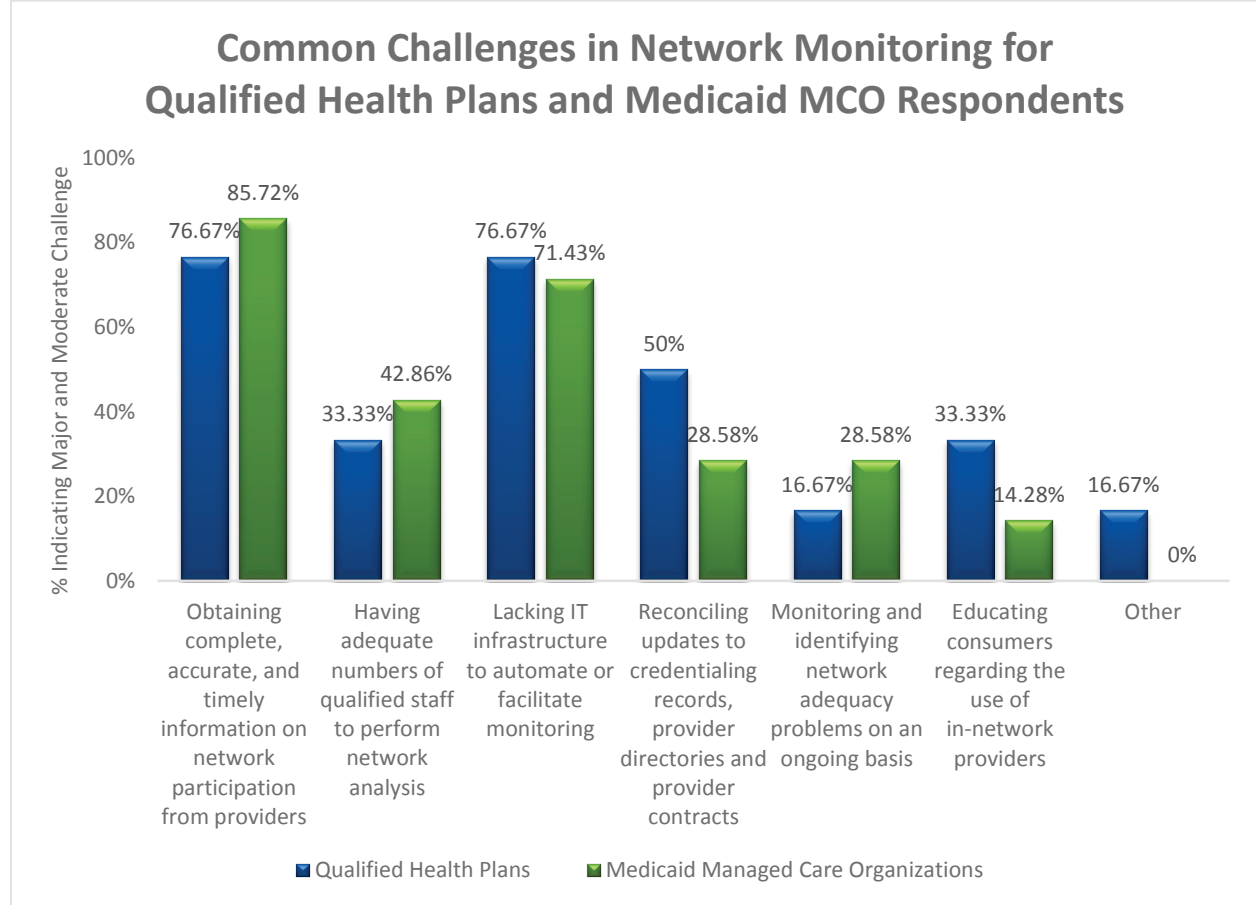Legend: ■ State Insurance Department ■ Medicaid Agency

Chart 2-2. Common challenges in network monitoring for Qualified Health Plan and Medicaid Managed Care Organization Respondents

Common Challenges in Network Monitoring for Qualified Health Plans and Medicaid MCO Respondents

Appendix B. Survey Tools

A National Examination of Provider Network Monitoring Practices
A Robert Wood Johnson Foundation Grant to Health Management Associates

STATE MEDICAID MANAGED CARE PROGRAM SURVEY

This survey is being conducted by Health Management Associates (HMA) under a grant from the Robert Wood Johnson Foundation. This research is being conducted with interest from the Association of Community Affiliated Health Plans (ACAP), Medicaid Health Plans of America (MHPA) and the National Association of Insurance Commissioners (NAIC). The goal of the project is to identify best practices and provide a thorough understanding of the challenges entailed in determining network adequacy.

You are being asked to supply information about your agency's provider network standards and practices for monitoring of Medicaid managed care organizations (MCOs). A related survey will be conducted with a nationwide sample of Medicaid MCOs. In addition, surveys will be conducted with a nationwide sample of qualified health plans and the state departments of insurance that monitor the Marketplace.

This survey will take 30-45 minutes to complete. When you have completed all of the questions, scan and email a copy of the survey to kbrodsky@healthmanagement.com or fax to (646) 861-2746. If you have any questions at any time, please call Karen Brodsky at (646) 584-5827 or contact her by email: kbrodsky@healthmanagement.com. Secondary contact is Barbara Smith at (202) 601-7744 or contact her by email: bsmith@healthmanagement.com.

Please submit the survey by <u>May 1, 2015</u>. *Survey responses will be reported in the aggregate or de-identified and will not be attributed to any individual, state or MCO without express permission.*

Section 1. Thresholds for Access Standards

1. Please indicate whether the following types of providers are considered Primary Care Providers (PCPs). *SKIP #2 IF RESPONSE TO "OTHER" IS NO OR DON'T KNOW.*

Primary Care Provider Type	YES	NO	DON'T KNOW
General practitioners			
Family practitioners			
Internists			
Pediatricians			
Nurse practitioners			
Physician assistants			
OB/GYNs			
Other			

2. If you answered Other to the previous question, please describe:

    _____

3. Does your state agency have provider-to-enrollee ratio requirements? *SKIP #4 IF "NO" OR "DON'T KNOW" IS SELECTED.*
    ___ YES   ___ NO   ___ DON'T KNOW

4. What is the maximum number of enrollees allowed per provider per contracting MCO for the following provider types in each geographic area?

Provider Type	Urban	Rural	Frontier	Not Applicable
PCP				
Pediatrician				
OB/GYN				
Dentist				

5. If there are other types of providers for which you employ enrollee to provider ratios, please list the type of provider and the ratios applied below.

Provider Type	Urban	Frontier	Rural

6. Given that many providers in a service area participate in more than one Medicaid MCO network, it is possible that the total number of enrollees attributed to a provider across all of the MCOs with which the provider contracts could be more enrollees than the maximum number allowed under the Medicaid managed care contract.

    Does your state agency monitor the total number of enrollees attributed to a provider across all contracting MCOs in a service area to determine compliance with provider-to-enrollee ratios?
    ___ YES   ___ NO   ___ DON'T KNOW

7. Does your state agency require that contracting PCPs have hospital admitting privileges at network hospitals?
    ___ YES   ___ NO   ___ DON'T KNOW

The next two questions refer to Geo-access requirements in Medicaid managed care contracts. For each type of provider, please indicate the standard your state agency applies for Urban, Rural, and/or Frontier regions, as applicable.

8. What is the travel <u>distance</u> standard in miles from an MCO enrollee's residence to a:
   You may skip over the provider types for which a distance standard does not exist.

Provider Type	Urban	Rural	Frontier
PCP			
Pediatrician			
OB/GYN			
Dentist			
Specialist			
Acute Care Hospital			
Pharmacy			

9. What is the travel <u>time</u> standard in minutes from an MCO enrollee's residence to a:
   You may skip the provider types for which a time standard does not exist.

Provider Type	Urban	Rural	Frontier
PCP			
Pediatrician			
OB/GYN			
Dentist			
Specialist			
Acute Care Hospital			
Pharmacy			

10. Health Professional Shortage Areas (HPSAs) are designated by the Health Resources and Services Administration (HRSA) as having shortages of primary medical care, dental or mental health providers.

    Does your state agency use different provider access thresholds in Health Professional Shortage Areas?
    ___ YES   ___ NO   ___ DON'T KNOW

11. Does your state agency require MCOs to cover care provided by non-network providers when that care is provided at an in-network facility?
    ___ YES   ___ NO   ___ DON'T KNOW

12. Does your state agency require MCOs to cover the services of new members in active treatment with an out-of-network provider for a minimum period of time in order to maintain continuity of care in the member's treatment? *SKIP #13 IF "NO" OR "DON'T KNOW" IS SELECTED*.
    ___ YES   ___ NO   ___ DON'T KNOW

13. What time standard for coverage for continuity of care by non-network providers, is used?

    ___ 60 days

    ___ 90 days

    ___ 120 days

    ___ Other

    ___ Customized based on the member's care plan

14. Does your state agency have a standard that limits the wait time between scheduling an appointment and being seen by a provider? *SKIP #15 IF "NO" OR "DON'T KNOW."*
    ___ YES   ___ NO   ___ DON'T KNOW

15. For each of the following types of appointments or patient visits, please indicate the maximum wait time in days within which a member must be seen by a provider.

Type of Appointment	Maximum Wait Time in Days
Well care	
Routine care	
Urgent care	
Emergency care	
Initial pre-natal care visit	

16. What is the maximum, in-office wait time, in minutes, members can experience for scheduled appointments? Please indicate "Not applicable" if this standard does not exist.

    _____

17. What are the standards required for MCOs have after-hours access to providers?

After Hours Standard	YES	NO	DON'T KNOW	NOT APPLICABLE
PCPs are required to offer appointments after-hours				
Specialists are required to offer appointments after-hours				

After Hours Standard	YES	NO	DON'T KNOW	NOT APPLICABLE
PCPs are required to offer 24/7 telephone access				
MCOs are required to offer a 24 hour nurse call line				

18. Does your state agency require that a minimum percentage of PCPs in an MCO's network accept new patients? *SKIP #19 IF ANSWER IS "NO" OR "DON'T KNOW."*

    ___ YES   ___ NO   ___ DON'T KNOW

19. What is the minimum percentage of PCPs in a network that must accept new patients?

    ___ 100%

    ___ 80% - 99%

    ___ 60% - 89%

    ___ 40% - 59%

    ___ Less than 40%

    ___ Don't know

20. The Affordable Care Act (ACA) requires Marketplace QHPs to include 30% of Essential Community Providers (ECP) in their networks. ECPs are providers that serve predominantly low-income, medically underserved individuals. Medicaid enrollees also rely on ECPs for treatment.

    Given the anticipated movement of enrollees between Medicaid MCOs and QHPs as their income fluctuates, if MCOs operate in the Marketplace in your state, has the Medicaid managed care program considered encouraging Medicaid MCOs that operate QHPs to:

    Replicate the QHP's ECP networks in the Medicaid MCO provider network?

    ___ YES   ___ NO   ___ DON'T KNOW

    Have significant overlap in the contracted Medicaid MCO and QHP provider networks?

    ___ YES   ___ NO   ___ DON'T KNOW

21. Does your state agency require that Medicaid MCOs cover eligible services rendered to members who saw out-of-network providers erroneously listed in the latest provider directory?

    ___ YES   ___ NO   ___ DON'T KNOW

22. Please indicate the greatest frequency required for Medicaid MCOs to update the provider directory <u>online</u>. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Whenever changes occur to the provider network

    ___ Other

    ___ Don't know

23. Please indicate the greatest frequency for Medicaid MCOs to update the provider directory <u>in print</u>. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Whenever changes occur to the provider network

    ___ Other

    ___ Don't know

24. Children with Special Health Care Needs (CYSHCN) are defined by the Department of Health and Human Services as "*Those who have or are at increased risk for a chronic physical, development, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.*"

    Does your state agency carve out specialty care for CYSHCN from its standard Medicaid MCO contract to a contractor that specializes in serving this population?

    ___ YES   ___ NO   ___ DON'T KNOW

25. Does your state agency have different provider access requirements for MCOs that serve only CYSHCN from standard MCO provider access requirements? *SKIP #26 IF ANSWER IS "NO"*

    ___ YES   ___ NO   ___ DON'T KNOW

26. If you answered Yes to the previous question, please describe:

    _____

27. Does your state agency have the following special MCO contract provisions and/or access standards specifically for CYSHCN in its standard MCO contract?

Policies or Provisions Specifically for CYSHCN	YES	NO	DON'T KNOW
MCOs must give members the ability to bypass "gatekeepers," prior authorization, or other referral requirements for in-network pediatric specialty care			
MCOs must include pediatric centers of care in their provider network (examples include: cardiac, regional genetics, end stage renal disease, perinatal care, transplants, hematology/ oncology, pulmonary, craniofacial, and/or neuromuscular specialists)			
MCOs are required to customize durable medical equipment and home health service provider arrangements for CYSHCN			
MCOs have provider access standards for CYSHCN that differ from standards for other enrollee populations			

28. With respect to CYSHCN, does your state agency:

Policies or Provisions Specifically for CYSHCN	YES	NO	DON'T KNOW
Directly educate families of CYSHCN about the special provider access provisions or options?			
Delegate the education of families of CYSHCN about the special provider access provisions or options to a vendor?			
Require the MCO to educate families of CYSHCN about the special provider access provisions or options?			
Require the MCO to inform network **providers** about the special provider access provisions or options for CYSHCN?			

29. Does your state agency plan to add or change provider access standards for CYSHCN in any of its Medicaid MCO contracts over the next year?

    ___ YES   ___ NO   ___ DON'T KNOW

30. If you answered Yes to the previous question, please describe:

    _____

    _____

Section 2. Monitoring Practices

31. Who is responsible for monitoring Medicaid MCO network adequacy in your state?

Responsible for Monitoring Network Adequacy	Completely	Partially	Never
Medicaid agency staff members			
A state agency other than Medicaid			
A contracted EQRO			
A contracted consulting firm			
Other			

32. If you answered other to the previous question, please describe:

_____

_____

33. To what degree does your state agency rely on the certifications of third parties, such as NCQA, to determine whether MCOs have provider network adequacy?

    ___ Complete reliance (only third party certifications are required)

    ___ Some reliance (third party certifications are required but not sufficient)

    ___ Minimal reliance (third party certifications are optional and not required)

    ___ No reliance (third party certifications are not included in determination of network adequacy)

34. Please indicate which of the following ways your state agency monitors MCOs' provider networks:

Ways State Agency Monitors Provider Networks	YES	NO	DON'T KNOW
A review is done of the Medicaid MCO's entire provider network file submission			
A review is done on a sample of the MCO's provider network files			
Our state agency requires that MCOs perform spot checks on network providers to confirm their network status			
Our state agency or a delegated entity performs "secret shopper" surveys with MCO network providers			

Ways State Agency Monitors Provider Networks	YES	NO	DON'T KNOW
Medicaid relies on the accreditation process by independent entities for reviews of network adequacy			
The Medicaid agency and Department of Insurance coordinate network monitoring activities			
The Medicaid agency and Department of Insurance routinely share reports and other information on Medicaid MCO network adequacy			

35. Please provide the greatest frequency with which the reviews of MCO provider file submissions occur. Select one.

___ Annually

___ Semi-annually

___ Quarterly

___ Monthly

___ Other

___ Don't know

36. If you answered other to the previous question, please describe:

_____

_____

37. Please indicate the metrics that your state agency uses to identify potential network deficiencies

Metrics Used to Identify Potential Network Deficiencies	YES	NO	DON'T KNOW
Percentage of out-of-network encounters to total encounters			
Emergency room utilization rates			
CAHPS survey results			
Encounters by category of service to assess underutilization			
Call center reports			
Member complaints and grievances reports			
Other			

38. If you answered Other to the previous question, please describe the other metric(s) in use to identify potential network deficiencies.

_____

39. Please indicate the provider network monitoring practices your state agency employs to evaluate member complaints and grievances.

Monitoring Practices	YES	NO	DON'T KNOW
Our state agency tracks the total number of complaints received at its call center about network adequacy/access to care			
MCOs must report the number of complaints received related to difficulty obtaining access to care to our state agency			
MCOs must report the number of complaints related to nonpayment for out of network care to our state agency			

40. Does your state agency have network monitoring metrics or practices specifically for Children and Youth with Special Health Care Needs and their providers in MCOs?

___ YES ___ NO   ___ DON'T KNOW

41. Please select the frequency of the following enforcement actions employed when MCOs are out of compliance with provider network access standards. (Often/Sometimes/Rarely/Never)

	OFTEN	SOMETIMES	RARELY	NEVER
State agency requests Corrective Action Plan of the MCO				
State agency reduces the number of new enrollees auto-assigned to the MCO				
State agency withholds a portion of the capitation payment from the MCO				
State agency assesses liquidated damages from the MCO				
States agency uses other penalties				

42. If you use other penalties with MCOs that have a deficient network, please describe:

_____

43. Please rate the challenges experienced in monitoring MCO provider network information by significance of the challenge:

Type of Challenge	Major challenge	Moderate challenge	Minor challenge	Not a challenge
Obtaining complete, accurate, and timely information on network participation from MCOs				
Having adequate numbers of qualified staff to perform network analysis				
Lacking IT infrastructure to automate or facilitate monitoring				
Monitoring and identifying network adequacy problems on an ongoing basis				
Educating consumers regarding the use of in-network providers				
Other				

44. If you answered Other to the previous question, please describe the other challenges experienced in maintaining MCO provider network information.

_____

Section 3. Background Information

45. How many individuals enrolled in your state's Medicaid program were enrolled in a comprehensive, risk-based Medicaid MCO in December 2014? _____

46. How many comprehensive risk-based Medicaid MCOs were under contract in your state in December 2014? _____

47. Contact Information:

    Respondent Name:

    _____

    Title:

    _____

    Name of Office:

    _____

Phone number:

_____

Email:

_____

48. Do we have your permission to identify your state, though not your name, in the final report?

___ YES ___ NO

Thank you for your participation!

A National Examination of Provider Network Monitoring Practices
A Robert Wood Johnson Foundation Grant to Health Management Associates

STATE INSURANCE REGULATOR SURVEY

This survey is being conducted by Health Management Associates (HMA) under a grant from the Robert Wood Johnson Foundation. This research is being conducted with interest from the National Association of Insurance Commissioners (NAIC), the Association of Community Affiliated Health Plans (ACAP), and Medicaid Health Plans of America (MHPA). The goal of the project is to identify best practices and provide a thorough understanding of the challenges entailed in determining network adequacy.

You are being asked to supply information about your state's provider network standards and your state insurance department/commission/ Marketplace (referred to as "agency") practices for certifying and monitoring Qualified Health Plans (QHPs) that participate in your state's Marketplace. A related survey will be conducted of a nationwide sample of Qualified Health Plans (QHPs). In addition, surveys will be conducted with a nationwide sample of Medicaid managed care organizations and Medicaid agencies that monitor their provider networks.

This survey will take 30-45 minutes to complete. When you have completed all of the questions, scan and email a copy of the survey to kbrodsky@healthmanagement.com or fax to (646) 861-2746. If you have any questions at any time, please call Barbara Smith at (202) 601-7744 or contact her by email: bsmith@healthmanagement.com.

Please submit the survey by <u>May 1, 2015</u>. *Survey responses will be reported in the aggregate or de-identified and will not be attributed to any individual, state or MCO without express permission.*

Section 1. Environmental Information

1. In what type of Marketplace does your state participate?
   ___ Federal   ___ State-based

2. If a State-based Marketplace, which entity provides oversight of QHP network adequacy?
   ___ State insurance department/commission

   ___ State-based Marketplace

   ___ Both the insurance department/commission and state-based Marketplace

3. Does your state agency regulate network adequacy or otherwise apply network adequacy standards to Marketplace QHPs? *IF "NO" STOP SURVEY HERE AND SUBMIT.*
   ___ YES   ___ NO

4. Does your state agency apply the same network adequacy standards to QHPs as other health plans operated by all licensed health insurance carriers in the individual and small group markets?

    ___ YES   ___ NO   ___ DON'T KNOW

5. If you answered No to the previous question, please describe areas of difference in standards for QHPs and other health plans.

    _____

Section 2. Thresholds for Access Standards

6. Please indicate whether the following types of providers are considered Primary Care Providers (PCPs). *SKIP #7 IF RESPONSE TO "OTHER" IS NO OR DON'T KNOW.*

Primary Care Provider Type	YES	NO	DON'T KNOW
General practitioners			
Family practitioners			
Internists			
Pediatricians			
Nurse practitioners			
Physician assistants			
OB/GYNs			
Other			

7. If you answered Other to the previous question, please describe:

    _____

8. Does your state agency have provider-to-enrollee ratio requirements? *SKIP #9 IF "NO" OR "DON'T KNOW" IS SELECTED.*

    ___ YES   ___ NO   ___ DON'T KNOW

9. What is the maximum number of enrollees allowed per provider per QHP for the following provider types in each service area?

Provider Type	Urban	Rural	Not Applicable
PCP			
Pediatrician			
OB/GYN			
Dentist			

10. If there are other types of providers for which you employ enrollee to provider ratios, please list the type of provider and the ratios applied below.

Provider Type	Urban	Rural

11. Given that many providers in a service area participate in more than one QHP network, it is possible that the total number of enrollees attributed to a provider across all of the QHPs with which the provider contracts could be more enrollees than the maximum number allowed.

    Does your state agency monitor the total number of enrollees attributed to a provider across all QHPs in a service area to determine compliance with provider-to-enrollee ratios?
    ___ YES   ___ NO   ___ DON'T KNOW

12. Does your state agency require that contracting PCPs have hospital admitting privileges at QHP network hospitals?
    ___ YES   ___ NO   ___ DON'T KNOW

The next two questions refer to Geo-access requirements. For each type of provider, please indicate the standard your state agency applies for Urban and Rural regions, as applicable.

13. Does your state agency have a standard for travel distance in miles from a member's residence to a provider? *SKIP #14 IF "NO" OR "DON'T KNOW" IS SELECTED.*
    ___ YES   ___ NO   ___ DON'T KNOW

14. What is the maximum travel <u>distance</u> standard in miles from QHP member's residence to a:
    You may skip over the provider types for which a distance standard does not exist.

Provider Type	Urban	Rural
PCP		
Pediatrician		
OB/GYN		
Dentist		
Specialist		
Acute Care Hospital		
Pharmacy		

15. Does your state agency have a standard for travel time in minutes from a member's residence to a provider? *SKIP #16 IF "NO" OR "DON'T KNOW" IS SELECTED.*
    ___ YES   ___ NO   ___ DON'T KNOW

16. What is the travel <u>time</u> standard in minutes from an member's residence to a:
    You may skip the provider types for which a time standard does not exist.

Provider Type	Urban	Rural
PCP		
Pediatrician		
OB/GYN		
Dentist		
Specialist		
Acute Care Hospital		
Pharmacy		

17. Health Professional Shortage Areas (HPSAs) are designated by the Health Resources and Services Administration (HRSA) as having shortages of primary medical care, dental or mental health providers.

    Does your state agency use different provider access thresholds in Health Professional Shortage Areas?
    ___ YES   ___ NO   ___ DON'T KNOW

18. Does your state agency require QHPs to cover care provided by non-network providers when that care is provided at an in-network facility?
    ___ YES   ___ NO   ___ DON'T KNOW

19. Does your state agency require QHPs to cover the services of new members in active treatment with an out-of-network provider for a minimum period of time in order to maintain continuity of care in the member's treatment? *SKIP #20 IF "NO" OR "DON'T KNOW" IS SELECTED.*
    ___ YES   ___ NO   ___ DON'T KNOW

20. What time standard for coverage for continuity of care by non-network providers, is used?

    ___ 60 days

    ___ 90 days

    ___ 120 days

    ___ Other

    ___ Customized based on the member's care plan

21. Does your state agency have a standard that limits the wait time between scheduling an appointment and being seen by a provider? *SKIP #22 IF "NO" OR "DON'T KNOW."*
    ___ YES   ___ NO   ___ DON'T KNOW

22. For each of the following types of appointments or patient visits for which a standard exists, please indicate the maximum wait time in days within which a member must be seen by a provider.

Type of Appointment	Maximum Wait Time in Days
Well care	
Routine care	
Urgent care	
Emergency care	

23. What are the standards required for QHPs to provide after-hours access to providers?

After Hours Standard	YES	NO	DON'T KNOW	NOT APPLICABLE
PCPs are required to offer appointments after-hours				
Specialists are required to offer appointments after-hours				
PCPs are required to offer 24/7 telephone access				
QHPs are required to offer a 24 hour nurse call line				

24. Does your state agency require that a minimum percentage of PCPs in a QHP's network accept new patients? *SKIP #25 IF ANSWER IS "NO" OR "DON'T KNOW."*
    ___ YES   ___ NO   ___ DON'T KNOW

25. What is the minimum percentage of PCPs in a network that must accept new patients?

    ___ 100%

    ___ 80% - 99%

    ___ 60% - 89%

    ___ 40% - 59%

    ___ Less than 40%

    ___ Don't know

26. The Affordable Care Act (ACA) requires Marketplace QHPs to include 30% of Essential Community Providers (ECP) in their networks. ECPs are providers that serve predominantly low-income, medically underserved individuals. Medicaid enrollees also rely on ECPs for treatment.

   Given the anticipated movement of enrollees between QHPs and Medicaid MCOs as their income fluctuates, if QHP carriers operate Medicaid MCOs in your state, has your state agency considered encouraging QHP carriers that operate Medicaid MCOs to have significant overlap between the QHP and Medicaid MCO provider networks?

   ___ YES   ___ NO   ___ DON'T KNOW

27. As the federal Marketplace requires that QHPs have a minimum of 30% of the ECPs in its service area in the provider network, did your state agency adopt a standard to align with the federal minimum ECP requirements for QHPs in the Marketplace?

   ___ YES   ___ NO   ___ DON'T KNOW

28. Does your state agency specify the types of ECPs that must be in the provider network?

   ___ YES   ___ NO   ___ DON'T KNOW

29. Does your state agency require that QHPs cover eligible services rendered to members who saw out of network providers erroneously listed in the latest provider directory?

   ___ YES   ___ NO   ___ DON'T KNOW

30. Does your state agency have a standard for the frequency with which provider directories must be updated? *SKIP #31 AND #32 IF ANSWER IS "NO" OR "DON'T KNOW."*

   ___ YES   ___ NO   ___ DON'T KNOW

31. Please indicate the greatest frequency required for QHPs to update the provider directory online. Select one.

   ___ Annually

   ___ Semi-annually

   ___ Quarterly

   ___ Monthly

   ___ Whenever changes occur to the provider network

   ___ Other

   ___ Don't know

32. Please indicate the greatest frequency for QHPs to update the provider directory <u>in print</u>. Select one.

       ___ Annually

       ___ Semi-annually

       ___ Quarterly

       ___ Monthly

       ___ Whenever changes occur to the provider network

       ___ Other

       ___ Don't know

Section 3. Monitoring Practices

33. Who is responsible for monitoring QHP network adequacy in your state? *SKIP to #47 IF "THIRD PARTY CERTIFICATION" IS SELECTED AS "COMPLETELY" AND THE REST ARE "NEVER".*

	Completely	Partially	Never
Department of Insurance staff members			
Marketplace office staff members			
Third party certification is provided to the Federal Marketplace			
A contracted consulting firm			
Other			

34. If you answered other to the previous question, please describe:

_____

_____

35. Please indicate which of the following ways your state agency monitors QHP provider networks:

	YES	NO	DON'T KNOW
A review is done of the QHP's entire provider network file submission			
A review is done on a sample of the QHP's provider network files			
Our state agency requires that QHPs perform spot checks on network providers to confirm their network status			

Our state agency or a delegated entity performs "secret shopper" surveys with QHP network providers			
Our state agency relies on the accreditation process by independent entities for reviews of network adequacy			

36. To what degree does your state agency rely on the certifications of third parties, such as NCQA, to determine whether MCOs have provider network adequacy?

      ____ Complete reliance (only third party certifications are required)

      ____ Some reliance (third party certifications are required but not sufficient)

      ____ Minimal reliance (third party certifications are optional and not required)

      ____ No reliance (third party certifications are not included in determination of network adequacy)

37. Please provide the greatest frequency with which the reviews of QHP provider file submissions occur. Select one.

____ Annually

____ Semi-annually

____ Quarterly

____ Monthly

____ Other

____ Don't know

38. If you answered other to the previous question, please describe:

_____

_____

39. Please indicate the metrics that your state agency uses to identify potential network deficiencies

Metrics Used to Identify Potential Network Deficiencies	YES	NO	DON'T KNOW
Percentage of out-of-network encounters to total encounters			
Emergency room utilization rates			
CAHPS survey results			

Metrics Used to Identify Potential Network Deficiencies	YES	NO	DON'T KNOW
Encounters by category of service to assess underutilization			
Call center reports			
Member complaints and grievances reports			
Other			

40. If you answered other to the previous question, please describe the other metric(s) in use to identify potential network deficiencies.

_____

41. Please indicate the provider network monitoring practices your state agency employs to evaluate member complaints and grievances.

Monitoring Practices	YES	NO	DON'T KNOW
Our state agency tracks the total number of complaints received about network adequacy/access to care			
QHP must report the number of complaints it receives related to difficulty obtaining access to care to our state agency			
QHPs must report the number of complaints related to nonpayment for out of network care to our state agency			

42. Please select the frequency of the following enforcement actions employed when QHPs are out of compliance with provider network access standards.

Enforcement Actions	OFTEN	SOMETIMES	RARELY	NEVER
State agency requests Corrective Action Plan of the QHP				
State agency restricts enrollment to the QHP				
State agency assesses liquidated damages from the QHP				
States agency uses other penalties				

43. If you use other penalties with QHPs that have a deficient network, please describe:

_____

44. Please rate the challenges experienced in monitoring QHP provider network information by significance of the challenge:

Type of Challenge	Major challenge	Moderate challenge	Minor challenge	Not a challenge
Obtaining complete, accurate, and timely information on network participation from QHPs				
Having adequate numbers of qualified staff to perform network analysis				
Lacking IT infrastructure to automate or facilitate monitoring				
Monitoring and identifying network adequacy problems on an ongoing basis				
Educating consumers regarding the use of in-network providers				
Other				

45. If you answered other to the previous question, please describe the other challenges experienced in maintaining QHP provider network information.
_____

Section 4. Background Information

46. How many QHP carriers were licensed / certified to operate in the Marketplace in your state in 2014? _____

47. How many QHP carriers are licensed / certified to operate in the Marketplace in your state in 2015? _____

48. How many total QHPs were operating in the Marketplace in your state in December 2014? _____

49. How many total QHPs are operating in the Marketplace in your state in 2015? _____

50. How many individuals were enrolled in QHPs in your state in December 2014? _____

51. How many individuals were enrolled in QHPs in your state as of March 2015 (after the last open enrollment period)? _____

52. Contact Information:

    Respondent Name:

    _____

    Title:

    _____

    Name of Office:

    _____

    Phone number:

    _____

    Email:

    _____

53. Do we have your permission to identify your state, though not your name, in the final report?

    ___ YES ___ NO

Thank you for your participation!

A National Examination of Provider Network Monitoring Practices
A Robert Wood Johnson Foundation Grant to Health Management Associates

MEDICAID MANAGED CARE ORGANIZATION SURVEY

This survey is being conducted by Health Management Associates (HMA) under a grant from the Robert Wood Johnson Foundation. This research is being conducted with interest from the Association of Community Affiliated Health Plans (ACAP), Medicaid Health Plans of America (MHPA) and the National Association of Insurance Commissioners (NAIC). The goal of the project is to identify best practices and provide a thorough understanding of the challenges entailed in determining network adequacy.

You are being asked to supply information about the provider network standards your organization must follow and the practices for complying with them. A related national survey will be conducted of Medicaid agencies. Both are part of a larger study that also will examine provider network oversight of Marketplace qualified health plans, and will be shared with survey respondents.

This survey will take 30-45 minutes to complete. When you have completed all of the questions, scan and email a copy of the survey to kbrodsky@healthmanagement.com or fax to (646) 861-2746. If you have any questions at any time, please call Karen Brodsky at (646) 584-5827 or contact her by email: kbrodsky@healthmanagement.com . The secondary contact is Barbara Smith at (202) 601-7744, or by email: bsmith@healthmanagement.com .

Please submit the survey by <u>**May 1, 2015**</u>. *Survey responses will be reported in the aggregate or de-identified and will not be attributed to any individual, state or MCO without express permission.*

Section 1. Thresholds for Access Standards

1. Please indicate whether your MCO considers the following types of providers Primary Care Providers (PCPs). *SKIP #2 IF RESPONSE TO "OTHER" IS NO OR DON'T KNOW.*

Primary Care Provider Type	YES	NO	DON'T KNOW
General practitioners			
Family practitioners			
Internists			
Pediatricians			
Nurse practitioners			
Physician assistants			
OB/GYNs			
Other			

2. If you answered Other to the previous question, please describe:

_____

3. Does your MCO use provider to member ratios in forming and maintaining provider networks? *SKIP #4 IF "NO" OR "DON'T KNOW" IS SELECTED.*
    ___ YES   ___ NO   ___ DON'T KNOW

4. What is the maximum number of members per provider for the following provider types in each geographic area? *You may skip over the provider types for which member to provider ratios are not in use.*

Provider Type	Urban	Rural	Frontier	Not Applicable
PCP				
Pediatrician				
OB/GYN				
Dentist				

5. If there are other types of providers for which your MCO uses member to provider ratios, please list the type of provider and the ratios applied below.

Provider Type	Urban	Frontier	Rural
PCP			
Pediatrician			
OB/GYN			
Dentist			

6. Given that many providers in a service area participate in more than one MCO network, it is possible that the total number of enrollees attributed to a provider across all of the MCOs with which the provider contracts could be more enrollees than the maximum number allowed under the Medicaid managed care contract.

    Does your MCO request information from providers on their total patient census or otherwise monitor the total number of patients attributed to them across all contracting Medicaid MCOs in a service area?
    ___ YES   ___ NO   ___ DON'T KNOW

7. Are the PCPs with whom your MCO contracts required to have hospital admitting privileges at network hospitals?
    ___ YES   ___ NO   ___ DON'T KNOW

The next two questions refer to Geo-access requirements in Medicaid managed care contracts. For each type of provider, please indicate the standard your MCO applies for Urban, Rural, and/or Frontier regions, as applicable.

8. What is the travel <u>distance</u> standard in miles from a member's residence to a:
   You may skip over the provider types for which a distance standard does not exist.

Provider Type	Urban	Rural	Frontier
PCP			
Pediatrician			
OB/GYN			
Dentist			
Specialist			
Acute Care Hospital			
Pharmacy			

9. What is the travel <u>time</u> standard in minutes from a member's residence to a:
   You may skip the provider types for which a time standard does not exist.

Provider Type	Urban	Rural	Frontier
PCP			
Pediatrician			
OB/GYN			
Dentist			
Specialist			
Acute Care Hospital			
Pharmacy			

10. Health Professional Shortage Areas (HPSAs) are designated by the Health Resources and Services Administration (HRSA) as having shortages of primary medical care, dental or mental health providers.

    Does your MCO use different provider access thresholds in Health Professional Shortage Areas?
    ___ YES   ___ NO   ___ DON'T KNOW

11. Does your MCO cover care provided by non-network providers when that care is provided at an in-network facility?
    ___ YES   ___ NO   ___ DON'T KNOW

12. Does your MCO cover the services of new members in active treatment with an out-of-network provider for a minimum period of time in order to maintain continuity of care in the member's treatment? *SKIP #13 IF "NO" OR "DON'T KNOW" IS SELECTED*.
    ___ YES   ___ NO   ___ DON'T KNOW

13. What time standard for coverage for continuity of care by non-network providers, is used?

    ____ 60 days

    ____ 90 days

    ____ 120 days

    ____ Other

    ____ Customized based on the member's care plan

14. Does your MCO use a standard that limits the wait time between seeking an appointment and being seen by a provider? *SKIP #15 IF "NO" OR "DON'T KNOW."*
    ____ YES   ____ NO   ____ DON'T KNOW

15. For each of the following types of appointments or patient visits, please indicate the maximum wait time in days within which a member must be seen by a provider.

Type of Appointment	Maximum Wait Time in Days
Well care	
Routine care	
Urgent care	
Emergency care	
Initial pre-natal care visit	

16. What is the maximum, in-office wait time, in minutes, members can experience for scheduled appointments? Please indicate "Not applicable" if this standard does not exist.

    _____

17. What are the standards that your MCO uses for after-hours access to providers? (Yes/No/Don't know/Not applicable)

After Hours Standard	YES	NO	DON'T KNOW	NOT APPLICABLE
PCPs are required to offer appointments after-hours				
Specialists are required to offer appointments after-hours				
PCPs are required to offer 24/7 telephone access				
Our MCO offers a 24 hour nurse call line				

18. Does your MCO have a minimum threshold against which it tracks the percentage of PCPs in its network that accept new patients? *SKIP #19 IF ANSWER IS "NO" OR "DON'T KNOW."*
    ___ YES   ___ NO   ___ DON'T KNOW

19. What is the minimum percentage of PCPs in your MCO's network that must accept new patients?

    ___ 100%

    ___ 80% - 99%

    ___ 60% - 89%

    ___ 40% - 59%

    ___ Less than 40%

    ___ Don't know

20. Does your parent organization offer a QHP in the state's Marketplace? (Yes/No/Don't know) *SKIP #21 AND #22 IF ANSWER IS "NO" OR "DON'T KNOW."*

    ___ YES   ___ NO   ___ DON'T KNOW

21. The Affordable Care Act (ACA) requires Marketplace QHPs to include 30% of Essential Community Providers (ECP) in their networks. ECPs are providers that serve predominantly low-income, medically underserved individuals. Medicaid enrollees also rely on ECPs for treatment.

    Has your MCO adopted the Marketplace standard for including ECPs in the provider network?

    ___ YES   ___ NO   ___ DON'T KNOW

22. Has your MCO taken steps to align its provider network with that of its QHP?

    ___ YES   ___ NO   ___ DON'T KNOW

23. Does your MCO cover eligible services rendered to members who saw out-of-network providers erroneously listed in the latest provider directory?

    ___ YES   ___ NO   ___ DON'T KNOW

24. Please indicate the greatest frequency with which your MCO updates the provider directory online. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Whenever changes occur to the provider network

    ___ Other

    ___ Don't know

25. Please indicate the greatest frequency with which your MCO updates the provider directory in print. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Whenever changes occur to the provider network

    ___ Other

    ___ Don't know

26. Children and Youth with Special Health Care Needs (CYSHCN) are defined by the Department of Health and Human Services as *"Those who have or are at increased risk for a chronic physical, development, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally."*

    Does your MCO enroll CYSHCN? *SKIP #27 THROUGH #30 IF ANSWER IS "NO/DON'T KNOW."*

    ___ YES   ___ NO   ___ DON'T KNOW

27. If you enroll CYSHCN, does your MCO have the following policies or provisions specifically for CYSHCN? – or that are available to CYSHCN? *SKIP #28 IF ALL ANSWERS ARE "NO."*

Policies or Provisions Specifically for CYSHCN	YES	NO	DON'T KNOW
Members have the ability to bypass "gatekeepers," prior authorization, or other referral requirements for in-network pediatric specialty care			
Our MCO includes pediatric centers of care in its provider network (examples include: cardiac, regional genetics, end stage renal disease, perinatal care, transplants, hematology/ oncology, pulmonary, craniofacial, and/or neuromuscular specialists)			
Our MCO customizes durable medical equipment and home health service provider arrangements for CYSHCN			
Our MCO uses provider access standards for CYSHCN that differ from standards for other enrollee populations			

28. With respect to CYSHCN, does your MCO:

Policies or Provisions Specifically for CYSHCN	YES	NO	DON'T KNOW
Have policies/systems to directly educate families of CYSHCN about the special provider access provisions or options?			
Leave the education of families of CYSHCN about the special provider access provisions or options to the state or the state's vendor?			
Have policies/systems to inform network providers about the special provider access provisions or options for CYSHCN?			

29. Has your MCO recommended Medicaid contract revisions, changed its own practices, or have plans to do so in the near future to monitor network access for CYSHCN?

___ YES   ___ NO   ___ DON'T KNOW

30. If you answered Yes to the previous question, please describe:

_____

_____

Section 2. Monitoring Practices

31. Please provide the greatest frequency with which your MCO reviews the provider files against state standards. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Other

    ___ Don't know

32. If you answered other to the previous question, please describe:

    _____

    _____

33. Please indicate the metrics that your MCO uses to identify potential network deficiencies.

Metrics Used to Identify Potential Network Deficiencies	YES	NO	DON'T KNOW
Percentage of out-of-network encounters to total encounters			
Emergency room utilization rates			
CAHPS survey results			
Encounters by category of service to assess underutilization			
Call center reports			
Member complaints and grievances reports			
Other			

34. If you answered Other to the previous question, please describe the other metric(s) in use to identify potential network deficiencies.

    _____

35. Please indicate the provider network monitoring practices your MCO employs to evaluate member complaints and grievances.

Monitoring Practices	YES	NO	DON'T KNOW
Our MCO tracks the number of complaints received through our call center and in writing from members related to difficulty obtaining access to care			
Our MCO tracks the number of complaints it receives related to nonpayment for out-of-network care			
Our MCO tracks the total number of complaints about network adequacy/access to care received by the state agency			

36. Does your MCO have network monitoring metrics or practices specifically for Children and Youth with Special Health Care Needs and their providers?

___ YES ___ NO   ___ DON'T KNOW

37. Please rate the challenges your MCO experiences in updating and monitoring provider network information by significance of the challenge:

Type of Challenge	Major challenge	Moderate challenge	Minor challenge	Not a challenge
Obtaining complete, accurate, and timely information on network participation from providers				
Having adequate numbers of qualified staff to perform network analysis				
Lacking IT infrastructure to automate or facilitate monitoring				
Reconciling updates to credentialing records, provider directories and provider contracts				
Monitoring and identifying network adequacy problems on an ongoing basis				
Other				

38. If you answered Other to the previous question, please describe the other challenges experienced in maintaining MCO provider network information.

_____

_____

39. What additional strategies has your MCO used to improve its ability to meet the state's provider network standards? Please indicate the strategies that apply and whether the strategies have been useful.

Additional Strategies Used to Improve Ability to Meet Network Standards	Useful	Somewhat Useful	Not Useful
Conduct secret shopper calls			
Conduct scheduled provider office site visits			
Conduct provider training and education			
Offer providers call-in hours for consultations with the MCO medical director			
Conduct outreach to providers named in member complaints			
Contract with consultants to assist in network validation activities			
Partner with MCOs to develop network compliance solutions			
Partner with the Medicaid agency to develop network compliance solutions			
Offer provider incentives to meet provider network performance requirements			

40. If there are any other strategies that were not listed in the previous question, please describe them.

_____

Section 3. Background Information

41. Does your MCO contract out <u>all</u> of the review and analysis of provider network adequacy to a vendor? *IF RESPONSE IS "YES," SKIP #42.*

___ YES ___ NO   ___ DON'T KNOW

42. Does your MCO contract out some of the review and analysis of the provider network to a vendor?

___ YES ___ NO   ___ DON'T KNOW

43. How many individuals were enrolled in your MCO in December 2014?

_____

44. Contact Information:

    Respondent Name: _____

    Title: _____

    Name of Office: _____

    Phone number: _____

    Email: _____

45. Do we have your permission to identify your MCO, though not your name, in the final report?

    ___ YES ___ NO

Thank you for your participation!

A National Examination of Provider Network Monitoring Practices
A Robert Wood Johnson Foundation Grant to Health Management Associates

QUALIFIED HEALTH PLAN (QHP) SURVEY

This survey is being conducted by Health Management Associates (HMA) under a grant from the Robert Wood Johnson Foundation. This research is being conducted with interest from the Association of Community Affiliated Health Plans (ACAP), Medicaid Health Plans of America (MHPA) and the National Association of Insurance Commissioners (NAIC). The goal of the project is to identify best practices and provide a thorough understanding of the challenges entailed in determining network adequacy.

You are being asked to supply information about the provider network standards your organization must follow and the practices for complying with them. A related national survey will be conducted of Marketplace agencies. Both are part of a larger study that also will examine provider network oversight of Medicaid managed care organizations and Medicaid agencies. We will send you a copy of the final report when it is published in the fall of 2015.

This survey will take 30-45 minutes to complete. When you have completed all of the questions, scan and email a copy of the survey to kbrodsky@healthmanagement.com or fax to (646) 861-2746. If you have any questions at any time, please call Barbara Smith at (202) 601-7744 or contact her by email: bsmith@healthmanagement.com.

Please submit the survey by <u>May 15, 2015</u>. *Survey responses will be reported in the aggregate or de-identified and will not be attributed to any individual, health plan or state without express permission.*

Section 1. Thresholds for Access Standards

1. Please indicate whether your QHP considers the following types of providers Primary Care Providers (PCPs). *SKIP #2 IF RESPONSE TO "OTHER" IS NO OR DON'T KNOW.*

Primary Care Provider Type	YES	NO	DON'T KNOW
General practitioners			
Family practitioners			
Internists			
Pediatricians			
Nurse practitioners			
Physician assistants			
OB/GYNs			

2. If your QHP considers any other types of providers as PCPs please describe.

    _____

3. Does your QHP use provider to member ratios in forming and maintaining provider networks?
    SKIP #4-6 IF "NO" OR "DON'T KNOW" IS SELECTED.
    ___ YES   ___ NO   ___ DON'T KNOW

4. What is the maximum number of members per provider for the following provider types in each geographic area?

Provider Type	Urban	Rural
PCP		
Pediatrician		
OB/GYN		
Dentist		

5. If there are other types of providers for which your QHP uses member to provider ratios, please list the type of provider and the ratios applied below.

Provider Type	Urban	Rural

6. Given that many providers in a service area participate in more than one QHP network, it is possible that the total number of patients attributed to a provider across all of the QHPs with which the provider contracts could be more patients than they are able to serve.

    Does your QHP request information from providers on their total patient census or otherwise monitor the total number of patients attributed to them across all QHPs in a service area?
    ___ YES   ___ NO   ___ DON'T KNOW

7. Are the PCPs with whom your QHP contracts required to have hospital admitting privileges at network hospitals?
    ___ YES   ___ NO   ___ DON'T KNOW

The next two questions refer to Geo-access requirements. For each type of provider, please indicate the standard your QHP applies for Urban and Rural, as applicable.

8. If your QHP uses travel <u>distance</u> standards, what is the travel <u>distance</u> standard in miles from a member's residence to a:
   You may skip over the provider types for which a distance standard does not exist.

Provider Type	Urban	Rural
PCP		
Pediatrician		
OB/GYN		
Dentist		
Specialist		
Acute Care Hospital		
Pharmacy		

9. If your QHP uses travel <u>time</u> standards, what is the travel <u>time</u> standard in minutes from a member's residence to a:
   You may skip the provider types for which a time standard does not exist.

Provider Type	Urban	Rural
PCP		
Pediatrician		
OB/GYN		
Dentist		
Specialist		
Acute Care Hospital		
Pharmacy		

10. Health Professional Shortage Areas (HPSAs) are designated by the Health Resources and Services Administration (HRSA) as having shortages of primary medical care, dental or mental health providers.

    Does your QHP use different provider access thresholds in Health Professional Shortage Areas?
    ___ YES   ___ NO   ___ DON'T KNOW

11. Does your QHP cover care provided by non-network providers when that care is provided at an in-network facility?
    ___ YES   ___ NO   ___ DON'T KNOW

12. Does your QHP cover the services of new members in active treatment with an out of network provider for a minimum period of time in order to maintain continuity of care in the member's treatment? *SKIP #13 IF "NO" OR "DON'T KNOW" IS SELECTED*.
___ YES   ___ NO   ___ DON'T KNOW

13. What time standard for coverage for continuity of care by non-network providers, is used?

   ___ 60 days

   ___ 90 days

   ___ 120 days

   ___ Other

   ___ Customized based on the member's care plan

14. Does your QHP use a standard that limits the wait times for member between scheduling an appointment and being seen by a provider? *SKIP #15 IF "NO" OR "DON'T KNOW."*
___ YES   ___ NO   ___ DON'T KNOW

15. For each of the following types of appointments or patient visits, please indicate the maximum wait time in days within which a member must be seen by a provider.

Type of Appointment	Maximum Wait Time in Days
Well care	
Routine care	
Urgent care	
Emergency care	

16. What are the standards that your QHP uses for after-hours access to providers?

After Hours Standard	YES	NO	DON'T KNOW	NOT APPLICABLE
PCPs are required to offer appointments after-hours				
Specialists are required to offer appointments after-hours				
PCPs are required to offer 24/7 telephone access				
Our QHP offers a 24 hour nurse call line				

17. Does your QHP have a minimum threshold against which it tracks the percentage of PCPs in its network that accept new patients? *SKIP #18 IF ANSWER IS "NO" OR "DON'T KNOW."*
___ YES   ___ NO   ___ DON'T KNOW

18. What is the minimum percentage of PCPs in your QHP's network that must accept new patients?

    ___ 100%

    ___ 80% - 99%

    ___ 60% - 89%

    ___ 40% - 59%

    ___ Less than 40%

    ___ Don't know

19. Does your parent organization offer a Medicaid MCO in the state's Medicaid managed care program? *SKIP #20 IF ANSWER IS "NO" OR "DON'T KNOW."*
    ___ YES   ___ NO   ___ DON'T KNOW

20. The Affordable Care Act (ACA) requires Marketplace QHPs to include 30% of Essential Community Providers (ECP) in their networks. ECPs are providers that serve predominantly low-income, medically underserved individuals. Medicaid enrollees also rely on ECPs for treatment. Has your QHP taken steps to align its provider network with that of its Medicaid MCO?
    ___ YES   ___ NO   ___ DON'T KNOW

21. Does your QHP cover eligible services rendered to members who saw out of network providers erroneously listed in the latest provider directory?
    ___ YES   ___ NO   ___ DON'T KNOW

22. Please indicate the greatest frequency with which your QHP updates the provider directory online. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Whenever changes occur to the provider network

    ___ Other

    ___ Don't know

23. Please indicate the greatest frequency with which your QHP updates the provider directory <u>in print</u>. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Whenever changes occur to the provider network

    ___ Other

    ___ Don't know

Section 2. Monitoring Practices

24. Does your QHP periodically review its provider network files against the state's network adequacy standards?
    ___ YES   ___ NO   ___ DON'T KNOW

25. Please provide the greatest frequency with which your QHP reviews the provider files against state standards. Select one.

    ___ Annually

    ___ Semi-annually

    ___ Quarterly

    ___ Monthly

    ___ Other

    ___ Don't know

26. If you answered other to the previous question, please describe:

    _____

    _____

27. Please indicate the metrics that your QHP uses to identify potential network deficiencies.

Metrics Used to Identify Potential Network Deficiencies	YES	NO	DON'T KNOW
Percentage of out-of-network encounters to total encounters			
Emergency room utilization rates			
CAHPS survey results			
Encounters by category of service to assess underutilization			
Call center reports			
Member complaints and grievances reports			
Other			

28. If you answered Other to the previous question, please describe the other metric(s) in use to identify potential network deficiencies.

_____

29. Please indicate the provider network monitoring practices your QHP uses to evaluate member complaints and grievances.

Monitoring Practices	YES	NO	DON'T KNOW
Our QHP tracks the number of complaints received through the call center and in writing from members related to difficulty obtaining access to care			
Our QHP tracks the number of complaints it receives related to nonpayment for out of network care			
Our QHP tracks the number of complaints about network adequacy/access to care received by the Marketplace and the Department of Insurance.			

30. Please rate the challenges your QHP experiences in updating and monitoring provider network information by significance of the challenge:

Type of Challenge	Major challenge	Moderate challenge	Minor challenge	Not a challenge
Obtaining complete, accurate, and timely information on network participation from providers				
Having adequate numbers of qualified staff to perform network analysis				
Lacking IT infrastructure to automate or facilitate monitoring				
Reconciling updates to credentialing records, provider directories and provider contracts				

Type of Challenge	Major challenge	Moderate challenge	Minor challenge	Not a challenge
Monitoring and identifying network adequacy problems on an ongoing basis				
Educating consumers regarding the use of in-network providers				
Other				

31. If you answered other to the previous question, please describe the other challenges experienced in maintaining QHP provider network information.

_____

32. What additional strategies has your QHP used to improve its ability to meet the state's provider network standards? Please indicate the strategies that apply and whether the strategies have been useful.

Strategy	Useful	Somewhat useful	Not useful	Not applicable
Conduct secret shopper calls				
Conduct scheduled provider office site visits				
Conduct provider training and education				
Offer providers call-in hours for consultations with the QHP medical director				
Conduct outreach to providers named in member complaints				
Contract with consultants to assist in network validation activities				
Partner with the state agency to develop network compliance solutions				
Offer provider incentives to meet provider network performance requirements				

33. If there are any other strategies that were not listed in the previous question, please describe them.

_____

Section 3. Background Information

34. Does your QHP contract out <u>all</u> of the review and analysis of provider network adequacy to a vendor? *SKIP #35 IF ANSWER IS "YES".*
    ___ YES   ___ NO   ___ DON'T KNOW

35. Does your QHP contract out some of the review and analysis of the provider network to a vendor?
    ___ YES   ___ NO   ___ DON'T KNOW

36. How many individuals were enrolled in your QHP in December 2014? _____

37. Contact Information:

    Respondent Name:

    _____

    Title:

    _____

    Name of Office:

    _____

    Phone number:

    _____

    Email:

    _____

38. Do we have your permission to identify your state, though not your name, in the final report?

    ___ YES ___ NO

Thank you for your participation!

Appendix C. Literature Review

1. Association for Community Affiliated Plans. *Overlap Between Medicaid Health Plans and QHPs in the Marketplaces: An Examination*. Washington, D.C., 2013. Available at http://www.communityplans.net/Portals/0/Policy/Medicaid/ACA%20Act/ACAP%20QHP%20Analysis%20Brief.pdf

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3. Kenney G, Coyer C. *National Findings on Access to Health Care and Service Use for Children Enrolled in Medicaid or CHIP*. Washington, D.C.: MACPAC, 2012. Available at https://docs.google.com/viewer?a=v&pid=sites&srcid=bWFjcGFjLmdvdnxtYWNwYWN8Z3g6NTlkY2ZiYzRmMmNlZWUzMw

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5. McCarty S, Farris M. *ACA Implications for State Network Adequacy Standards*. Washington, D.C.: Georgetown University Health Policy Institute, 2013. Available at http://www.rwjf.org/en/library/research/2013/08/aca-implications-for-state-network-adequacy-standards.html

6. Murrin S. *State Standards for Access to Care in Medicaid Managed Care*. Washington, D.C.: U.S. Department of Health and Human Services, Office of Inspector General, 2014. Available at http://oig.hhs.gov/oei/reports/oei-02-11-00320.pdf

7. National Association of Insurance Commissioners. *Insurance Department Survey of Network Adequacy Regulatory Requirements and Oversight*. Austin, TX: Health Management Associates, 2014.

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9. National Committee for Quality Assurance. *Network Adequacy and Exchanges*. Washington, D.C., 2013. Available at http://www.ncqa.org/Portals/0/Public%20Policy/Exchanges&NetworkAdequacy_2.11.13.pdf
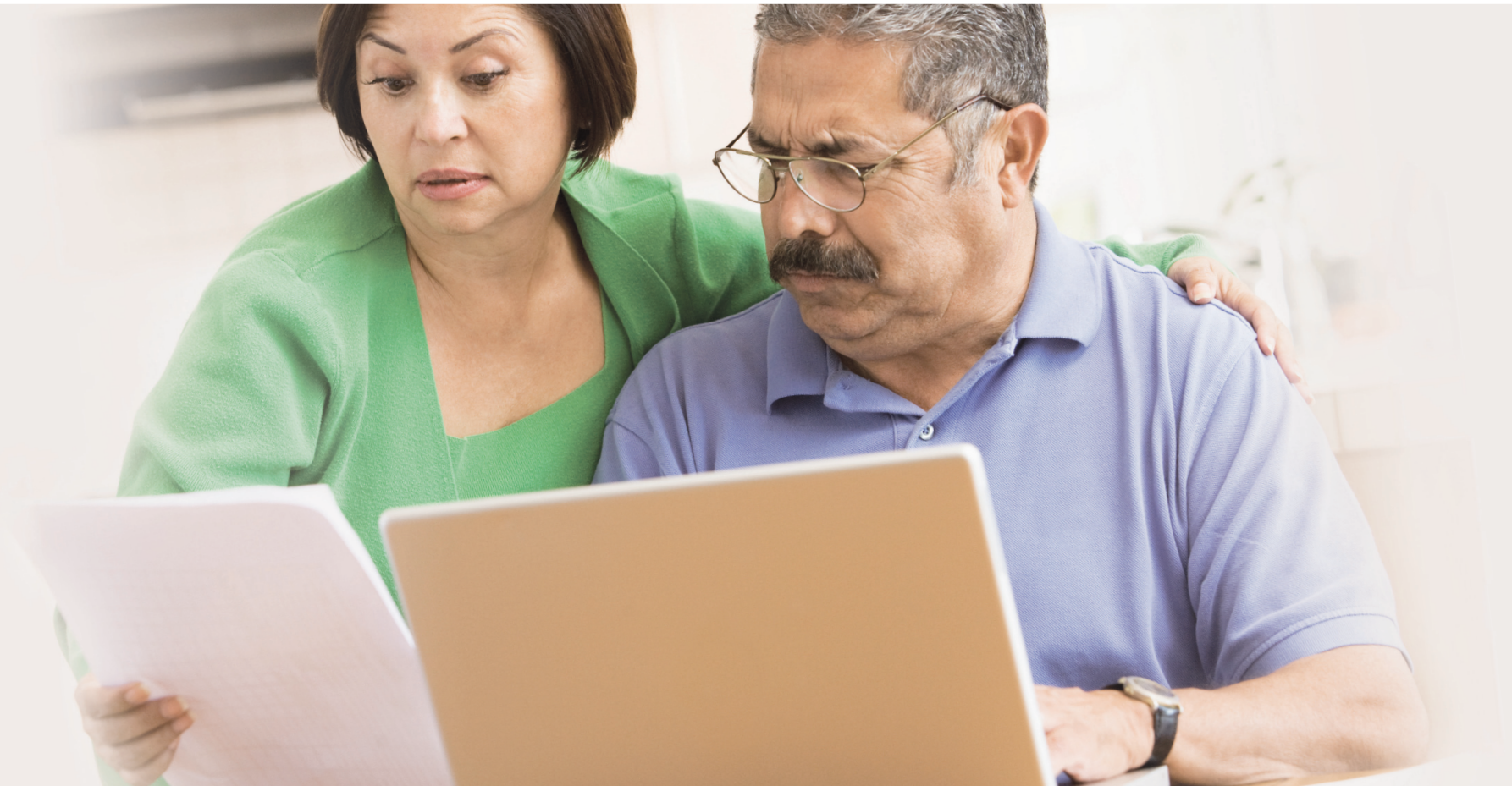
Improving the Accuracy of Health Insurance Plans' Provider Directories

ISSUE BRIEF / OCTOBER 2015

Since the Affordable Care Act's passage in 2010, there have been vast improvements in health coverage.

These include a monumental decrease in the share of people who lack insurance, improved benefits in many health insurance plans, more accountability for how insurers spend consumers' money, and other accomplishments that have improved access to affordable care in the United States. However, one health insurance problem that existed long before the enactment of the Affordable Care Act (ACA) and still persists today is the inaccuracy of information from insurance plans about the health care providers and facilities that participate in their networks.

Why Accurate Provider Directories Are Necessary

Health plans should provide accurate information about the health care providers and facilities that participate in their networks for many reasons. These include:

Consumers need accurate information about the providers and facilities that are in health plan provider networks when shopping for coverage. To find the plan that best meets their needs and will protect them from unnecessarily high health care costs, consumers must be able to compare accurate information about the providers and facilities that are in-network for each health plan option.

Health plan enrollees need accurate information about which providers and facilities they can visit in-network. Once enrolled in coverage, consumers seeking care must have accurate information about in-network providers so that they can find providers and facilities that take their insurance and match their health, language, and other needs. Without this information, for example, they may end up inadvertently receiving care from providers or facilities that are out of network. This would likely expose the consumers to significantly higher charges for that care than the amount of the deductible, copayment, or other cost-sharing they would face if they received care in the network.

Accurate information is necessary for consumers, regulators, and lawmakers to assess the adequacy of an insurer's network. To create an accurate picture of a plan's network and how robust that network is, its provider directory must be accurate. If a plan's provider directory includes many providers that are not actually in its network, or lists multiple addresses for a provider that sees patients at only one location, the plan's network will appear much more expansive than it truly is. This could lead consumers, particularly those with specific or more advanced health care needs, to feel comfortable enrolling in a plan that, in the end, will not meet their needs. It could also lead the federal and state officials responsible for assessing whether a plan's network is adequate, such as state insurance commissioners, to mistakenly believe a plan is meeting network adequacy standards when it is not.

Inaccuracies in health plan provider directories hinder consumers' ability to obtain affordable care that meets their needs. Inaccuracies also make it hard for regulators and others to assess whether provider networks are adequate to serve enrollees. Health plans and policymakers can take steps to reduce the prevalence of inaccuracies in provider directories. Certain states have already implemented policies to address this problem.

Inaccuracies in Provider Directories Are Prevalent

Consumers often find that reliable information about health insurance provider networks is not available. Common inaccuracies contained in the provider directories maintained by health plans include:

» Providers who are not actually in the plan's network

» Inaccurate provider contact information, such as incorrect phone numbers

» Inaccurate information about which languages providers speak or the type of health care services they deliver

Research Documenting the Prevalence of Inaccurate Provider Directories

One study of Maryland's qualified health plans (QHPs, plans certified for sale on a health insurance marketplace under the ACA) found that less than half (only 43 percent) of psychiatrists listed in their provider directories could be reached at the numbers listed for them. Of those providers listed as psychiatrists that could be reached, 19 percent were not actually psychiatrists (some were other types of mental health providers, and others were different types of physicians, such as family doctors). Considering these and other accuracy problems, the study concluded that only 14 percent of the 1,154 individuals listed in the directories as psychiatrists were available to see new patients who needed to see a psychiatrist within 45 days.[1]

As mentioned earlier, provider directory accuracy problems existed before the implementation of the ACA. A study of PPO plans in New Jersey in 2013 (one year prior to the law's implementation) found that contact information was incorrect for one-third (33 percent) of 525 of the psychiatrists listed in their directories.[2]

This problem is not unique to psychiatrists. California regulators conducted studies of provider directories for two of the state marketplace's major insurers in 2014 and found inaccuracies were prevalent across all types of providers. In one plan, 18.2 percent of providers were not practicing at their listed locations and 8.8 percent did not accept the plan's marketplace insurance.[3] In the other plan, 12.5 percent of providers had inaccurate location information and 12.8 percent did not actually accept the plan's marketplace insurance, despite being listed in the plan's online directory as doing so.[4]

Provider Directory Requirements in the Affordable Care Act

The ACA and corresponding regulations put in place certain requirements for QHPs to make provider network information transparent. In addition to general network adequacy standards,[5] the law requires that plans "provide information to enrollees and prospective enrollees on the availability of in-network and out-of-network providers."[6]

43%
Less than half of psychiatrists in Maryland QHPs could be reached at the numbers listed for them in the provider directories.[1]

Regulations to implement that section of the law are more specific, requiring QHPs to make their provider directories available both online and also in hard copy upon request. The directories must identify providers that are not accepting new patients. The rules also specify that, for 2016 plans, QHPs must publish provider directories that are "up-to-date, accurate, and complete." Under the preamble to the rule, insurers are required to update their directories at least once a month. The rules also require that, for 2016 plans, directories must include:

» The provider's location

» The provider's contact information

» The provider's specialty

» The provider's medical group

» Any of the provider's institutional affiliations

Also for 2016 plans, directories must be "easily accessible." Specifically, this means:

"....the general public is able to view all of the current providers for a plan in the provider directory on the issuer's public website through a clearly identifiable link or tab and without creating or accessing an account or entering a policy number; and if a health plan issuer maintains multiple provider networks, the general public is able to easily discern which providers participate in which plans and which provider networks."[7]

Many of these requirements were already in place in previous years for plans in the federally facilitated marketplaces.[8]

Also for the 2016 plan year, the U.S. Department of Health and Human Services (HHS) is requiring plans in the federally facilitated marketplaces to make their provider directory information available on their websites and to HHS in a "machine-readable" format.[9] This will allow third parties, including HHS, to create new digital provider directory tools.

Additional Steps Are Necessary to Improve Provider Directory Accuracy

The requirements described above are a good first step to ensuring that consumers have access to necessary information in provider directories. However, given the prevalence of provider directory inaccuracies and the consequences these inaccuracies have for consumer plan usability and network adequacy, additional steps must be taken to more directly target and correct directory errors.

For example, although a standard requiring plans to update their directories each month is helpful, it is not sufficient to ensure accurate directories. In practice, if the standard is not clearly defined, a monthly update standard can amount to nothing more than a requirement that plans update their directories with any new information they have received from providers within one month of receiving that information. This requirement, although useful, will not catch any changes to information in the provider directory that are not reported by providers. This could include inaccurate information that has remained in a directory through many update cycles, possibly even for years.

1/3
of psychiatrists listed in New Jersey PPOs had incorrect contact information.[2]

To more comprehensively address the need for accurate information in provider directories, state and federal policymakers and health plans should require or adopt the following practices:

Establish a process for the public to report inaccuracies: This may take the form of a web-based "pop-up" box, email address, or phone number displayed prominently on all provider directories for enrollees, potential enrollees, or any member of the public to use to directly notify a plan when they identify provider directory information that is inaccurate, and a guarantee that the plan will investigate these reports and modify directories accordingly in a timely manner. Plans should investigate reports of inaccuracies and modify directories (such as by removing providers no longer in the network) in accordance with their findings within no more than 30 days. Plans should report annually to regulators (such as the state insurance department or HHS) on the number of reports received, the timeliness of the plans' response, and the corrective actions taken. These data should be available to the public.

Conduct regular audits of provider directories, with directory edits based on findings: Plans should contact a significant sample or all of the providers and facilities in each specialty in their directory twice a year to assess the accuracy of information, such as: 1) whether their contact information is correct, 2) whether they are really in the plan's network, 3) whether they

are taking new patients. If the directory lists which languages other than English providers speak (see text box on page 6), plans should also assess the accuracy of that information. If any of the information listed in the directory is found to be inaccurate based on the findings of the audit, the directory should be updated within no longer than one month of the date in which the inaccuracy is noted.

Contact inactive providers: Plans should contact providers listed as in-network who have not submitted claims within the past six months to determine whether the providers still intend to participate in the network. Based on the providers' responses, plans should update their directories accordingly. If providers do not respond within 30 days, plans should attempt contact again, and if providers do not respond within another 30 days, plans should remove the providers from the directory.

Guarantee to honor provider directory information: Plans should give consumers the guarantee that, if consumers rely on materially inaccurate information from a directory indicating that a provider is in-network and receive care from that provider, consumers will be held harmless. Plans should charge consumers only the in-network amount of cost-sharing and allow consumers' costs to count toward the in-network deductible and out-of-pocket maximum. Consumers must not be responsible for any costs beyond these charges from either the provider (a "balance bill") or the plan.

18.2%
of providers in one plan were not practicing at their listed locations.[3]

Plans and policymakers should also explore more efficient ways of populating provider directories with accurate information so that health plans do not have to rely solely on gathering individual pieces of information from separate providers and facilities to compile a directory. For example, policymakers and plans should explore whether the databases that plans use to determine whether to pay a provider an in-network or out-of-network rate at the time a provider delivers a service could also be used for populating provider directories with information about which providers are in a plan's network.

Provider Directories and Language Accessibility

Ensuring that provider directories have information necessary for people with limited-English proficiency is important to help ensure that all communities are able to access care that effectively meets their needs. However, under federal requirements, health plans do not have to list which languages, other than English, providers speak. Fortunately, some health plans voluntarily list this information. To broadly ensure that provider directories include this information, federal policymakers should require plans to list information about which languages, other than English, providers speak, when applicable. Policymakers at the state level can also act to implement this requirement.

It is not only critical that health plans include information about what languages other than English providers speak, but also that this information is accurate. When this information is included in directories, audits to assess provider directory accuracy should evaluate whether information about the languages providers speak is accurate, and plans should correct any inaccurate directory information about languages providers speak in a timely manner. In addition, directories should only list health care professionals as having the ability to provide care in languages other than English if a health care provider who speaks that language or a trained medical interpreter is available. A directory should not list non-English language abilities if only administrative office staff who are not trained in medical interpretation speak the non-English languages. Health plans should also be able to accept reports of provider directory inaccuracies from the public in languages other than English so that they can remove inaccurate information that consumers with limited-English proficiency identify.

In order to make provider directories useful for all communities, they should be available in non-English languages. The District of Columbia, for example, is launching a Spanish language provider directory for its health insurance marketplace for the 2016 plan year, which will be available on www.DChealthlink.com.

Health plans, the federal government, and states should also take similar steps to provide and maintain accurate and specific information to ensure that provider directories can meet the needs of individuals with disabilities.

Provider Directory Standards from the States

Some states have already enacted the types of policies described previously that can directly address and help eliminate provider directory inaccuracies. Health plans, federal officials, and policymakers in other states can look to these states as models when working to implement policies to tackle provider directory inaccuracies.

California

In 2015, the California legislature passed a bill that would take significant steps to identify and ameliorate provider directory inaccuracies and protect consumers from their negative impacts.

Notable requirements in CA SB 137[10]

Regular directory audits and outreach to providers: At least annually, health plans shall review and update their entire provider directories. They shall notify providers of the information they have in their directories, including a list of networks and plan products that include the providers. For most providers, this notification should be issued every six months[11] and include instructions on how the providers can access and update the information using an online interface[12] and a statement that failure to respond may result in delayed payment or reimbursement of a claim.

» Providers shall confirm that the information in the directory is accurate or update it, including whether they are accepting new patients for each plan product. If the plan does not receive confirmation that the information is accurate or an update within 30 business days, the plan shall take no more than 15 business days to verify whether the provider's information is correct or requires updates. The plan shall document the receipt and outcome of each attempt to verify the information.

» If the plan is unable to verify the information, the plan shall notify the provider 10 business days in advance of removal that the provider will be removed from the directories. The provider shall be removed at the next required update after the 10-day notice period. Providers shall not be removed if they respond before the end of the notice period.

Regular updating of directories: Insurers must update their online directories at least weekly, or more frequently if required by federal law. The triggers for updates include confirmed enrollee complaints that a provider is not accepting new patients, has incorrect contact information in the directory, or is otherwise not available.

Process for the public to report inaccuracies: The plan shall maintain a process for enrollees, potential enrollees, providers, and the public to report possible inaccurate, incomplete, confusing, or misleading information listed

in the provider directories. This process shall, at a minimum, include a telephone number and dedicated email address at which the plan will accept these reports, as well as a link on the plan's provider directory webpage to a form where the information can be reported directly to the plan.

» Whenever a plan receives such a report, the plan shall promptly investigate it, and, no later than 30 business days following receipt of the report, either verify the accuracy of the information or update the information, as applicable.

» When investigating a report regarding its provider directories, the plan shall, at a minimum: 1) contact the affected provider no later than five business days following receipt of the report; and 2) document the receipt and outcome of each report, including: the provider's name, location, and a description of the plan's investigation, the outcome of the investigation, and any changes or updates made to its provider directory.

» If changes to a provider directory are required as a result of the plan's investigation, changes to the online directory shall be made no later than the next scheduled weekly update, or the update immediately thereafter, or sooner if required by federal law or regulations. For printed provider directories, the change shall be made no later than the next required update, or sooner if required by federal law or regulations.

Enforcement and oversight: A plan may delay payment or reimbursement to a provider who fails to respond to attempts to verify the provider's information in writing, electronically, and by telephone. A plan shall notify the provider 10 business days before it seeks to delay payment or reimbursement. A plan that delays payment or reimbursement shall document each instance and report this information to regulators. A plan may terminate a contract with a provider for a pattern or repeated failure to alert the plan to a change in the information required to be in the directories.[13]

If plans determine that, as a result of removing directory information for non-responsive providers, there has been a 10 percent change in the network for a product in a region, the plan shall file an amendment to the plan's application (which provides detailed information about the plan for oversight purposes) with state regulators.

A guarantee to honor provider directory information: If regulators find that a consumer reasonably relied upon materially inaccurate, incomplete, or misleading information in a provider directory, the regulator may require the insurer to provide coverage for all covered services provided to the consumer and to reimburse the consumer for any amount beyond what the consumer would have paid had the services been delivered by an in-network provider.

District of Columbia

The Executive Board of the District of Columbia's state-based marketplace implemented a resolution[14] establishing requirements applicable to all QHPs (which include most individual market and small group plans in D.C.[15]) to take the following steps to ensure provider directory accuracy:

Process for the public to report inaccuracies: In time for the third open enrollment (for the 2016 plan year), prominently post a phone number or email address in online and print provider directories (although not necessarily a dedicated phone number or email address) for consumers to report inaccurate provider directory information.

Insurers will be required, within 30 days, to validate reports that directories are inaccurate or incomplete and, when appropriate, to correct the information. Insurers will be required to maintain a log of consumer-reported directory complaints that will be accessible to the insurance department or the marketplace authority upon request.

Regular audits or outreach to providers: Beginning in 2015, insurers are required to take at least one of the following steps annually and report such steps to the insurance department:

1. Perform regular audits reviewing provider directory information.

2. Validate provider information when a provider has not filed a claim with an insurer in 2 years (or a shorter period of time).

3. Take other innovative and effective actions approved by the insurance department to maintain accurate provider directories. An example could be validating provider information based on provider demographic factors such as an age where retirement is likely.

New Jersey

New Jersey regulations require a measure to help ensure that provider directory information stays current, as follows:

Outreach to inactive providers: Insurers shall confirm the participation of any provider who has not submitted a claim for 12 months or otherwise communicated with the insurer in a manner that demonstrates the provider's intention to continue to participate in the network and for whom no change in provider status has been reported. The process for confirming participation shall be as follows:

1. The insurer shall contact the provider and request that the provider confirm his or her intention to continue to participate in the network. Based on the provider's response, the insurer shall update its directories as necessary.

2. If the provider fails to respond to an insurer's communication, the insurer shall mail a follow-up request to the provider by certified mail, return receipt requested. If the provider fails to respond within 30 days, the insurer shall remove the provider from its network and update its directories as necessary.[16]

Texas

Texas regulations protect consumers from the adverse consequences of inaccurate provider directories as follows:

A guarantee to honor provider directory information: Texas regulations provide protection for consumers in most managed care plans when consumers receive inaccurate information about in-network providers from a provider listing or other information online from their insurer or an entity designated by the insurer to provide information to enrollees. If such information incorrectly states that a given provider is in-network, the consumer will be protected from some or all (depending on the type of plan) of the additional costs for care from that provider if that provider is actually out-of-network and the consumer receives care from the provider believing the provider is in-network. To qualify for this protection, the consumer must have obtained the information no more than 30 days before receiving services from the provider. An insured consumer who qualifies will be protected as follows:[17]

» For exclusive provider organizations (EPOs) (also proposed for HMOs):[18] The consumer will be held harmless for paying any amounts beyond the copayment, deductible, and co-insurance rate that the insured would have paid for the same services from an in-network provider. The insurer must pay the out-of-network provider at the usual and customary rate or at a rate agreed to by the insurer and the provider.[19]

» For PPOs: The insurer must pay the out-of-network provider at the usual and customary charge, using a reimbursement methodology based on providers' billed amounts. If consumers are charged co-insurance, the in-network co-insurance rate must apply. In addition, the consumer's out-of-pocket costs, including any balance bills paid, will count toward the in-network deductible and out-of-pocket maximum.

Process for the public to report inaccuracies: Effective for the 2016 plan year, insurance plans that use provider networks must conspicuously display in their provider directories an email address and toll-free phone number to which any individual may report any inaccuracy in the directory. When the plan receives a report that specifically identifies potentially inaccurate information, the plan must investigate the report and correct the information, as necessary, no later than the seventh day after the report is received.[20]

Other Standards for Provider Directory Accuracy

In addition to examples of legislation and regulation from the states, policymakers and regulators may want to consider additional sources of standards for provider directory accuracy when weighing options for addressing this issue.

Medicare Advantage: In its 2016 call letter for Medicare Advantage plans (released April 6, 2015), the Centers for Medicare and Medicaid Services (CMS) outlined provider directory accuracy standards for those

plans that are more robust than CMS currently requires for QHPs or Medicaid plans. These Medicare Advantage standards include direct auditing of provider directories for accuracy and compliance and enforcement actions for plans that fail to maintain complete and accurate directories.[21]

Health Plan Accreditors: Health plan accreditors are independent entities that review plans for quality against the accreditor's benchmark standards. QHPs must meet certain requirements for accreditation by federally recognized entities.[22] The National Committee for Quality Assurance (NCQA), one such entity, recently released its 2016 accreditation standards, which include updates to its provider directory standards.[23] URAC, another federally recognized accreditor, also assesses health plans on provider directory accuracy.[24]

NAIC (National Association of Insurance Commissioners): The NAIC is currently updating its model law on network adequacy. This model act will contain requirements related to provider directory accuracy and is slated to be complete before the end of 2015.[25]

Conclusion

Although provider directory inaccuracies have caused problems for consumers and other stakeholders for many years, there are many steps policymakers, regulators, and health plans can take to help ameliorate this issue. Policymakers and regulators at the state and federal levels should prioritize this issue both for private insurance and for public programs like Medicaid, as accurate provider directories are critical to ensuring that coverage works for consumers. Accurate directories protect consumers from inadvertently visiting out-of-network providers who could leave them with high bills and they allow consumers to correctly identify providers who meet their language, location, and other needs. What's more, they create a true picture of which providers are actually in a plan's network, making it easier to assess whether or not a network is adequate. By committing to take steps to address provider directory accuracy, federal and state policymakers, as well as health plans directly, can make a meaningful impact on consumers' health insurance experience and access to providers.

> Health plans and policymakers can employ these approaches to ensure provider directory accuracy—and meaningfully improve consumers' health insurance experience and access to providers.

Endnotes

1 Mental Health Association of Maryland, *Access to Psychiatrists in 2014 Health Plans* (Baltimore, MD: MHAMD, January 2015), available online at: http://mhamd.org/wp-content/uploads/2014/01/2014-QHP-Psychiatric-Network-Adequacy-Report.pdf.

2 Mental Health Association of New Jersey, *Managed Care Network Adequacy Report* (Verona, NJ: MHANJ, September, 2014), available online at: http://www.mhanj.org/wp-content/uploads/2014/09/Network-Adequacy-Report-Final.pdf.

3 California Department of Managed Health Care Help Center, Division of Plan Surveys, *Final Report: Non-Routine Survey of Blue Shield of California* (Sacramento, CA: DMHC, November 18, 2014), available online at: http://www.dmhc.ca.gov/desktopmodules/dmhc/medsurveys/surveys/043fsnr111814.pdf.

4 California Department of Managed Health Care Help Center, Division of Plan Surveys, *Final Report: Non-Routine Survey of Anthem Blue Cross* (Sacramento, CA: DMHC, November 18, 2014), available online at: http://www.dmhc.ca.gov/desktopmodules/dmhc/medsurveys/surveys/303fsnr111814.pdf.

5 42 US Code § 18031(c)(1)(B); 45 CFR 156.230.

6 42 US Code § 18031(c)(1)(B)

7 45 CFR 156.230

8 Center for Consumer Information and Insurance Oversight, *2015 Letter to Issuers in the Federally-facilitated Marketplaces* (Washington: CMS, March 14, 2015), available online at: https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2015-final-issuer-letter-3-14-2014.pdf.

9 45 CFR 156.230

10 California Legislature, *SB 137 Health Care Coverage: Provider Directories*, enrolled September 15, 2015, available online at: http://www.leginfo.ca.gov.

11 General acute care hospitals are exempt from these requirements. Federally qualified health centers and primary care clinics, skilled nursing facilities, urgent care centers, ambulatory surgery centers, inpatient hospice, residential care facilities, inpatient rehabilitation facilities, pharmacies, clinical laboratories, and imaging centers must only receive notice of provider directory information once per year.

12 Under SB 137, every plan shall ensure processes are in place to allow providers to verify or submit changes to the information in the directory. Those processes shall, at a minimum, include an online interface for providers to submit verification or changes electronically and shall generate an acknowledgment of receipt from the plan.

13 Limits on payment delays are as follows: Plans may delay payments for up to one calendar month beginning on the first day of the following month. Plans may delay no more than 50 percent of the next scheduled capitation payment for up to one calendar month for providers that receive compensation on a capitated or prepaid basis. If a provider submits the required directory information, the plan must reimburse the full amount of any payment or reimbursement subject to delay no later than three business days following the date on which the plan receives the information.

14 Executive Board of the District of Columbia Health Benefit Exchange Authority, *Resolution to Update the Qualified Health Plan Certification Requirements* (Washington: DCHBX, February 9, 2015), available online at: http://hbx.dc.gov/sites/default/files/dc/sites/hbx/publication/attachments/Resolution20to%20Update%20the%20Qualified%20Health%20Plan%20Certification%20Requirement.pdf; Executive Board of the District of Columbia Health Benefit Exchange Authority, *Qualified Health Plan Certification Requirement Recommendations* (District of Columbia: DCHBX, January 21, 2015), available online at: http://hbx.dc.gov/sites/default/files/dc/sites/hbx/publication/attachments/Qualified%20Health%20Plan%20Certification%20Requirements.pdf.

15 The District of Columbia enacted a law to centralize the sale of all individual and small group health insurance through its marketplace. Although some plans may remain grandfathered, eventually all non-grandfathered individual and small group plans will be QHPs. For information on how this transition is occurring, see District of Columbia Health Benefit Exchange Authority, *Health Benefit Exchange Board Approves Transition to Competitive Insurance Market* (Washington: DCHBX, March 13, 2013), available online at: http://hbx.dc.gov/release/health-benefit-exchange-board-approves-transition-competitive-insurance-market.

16 N.J.A.C. 11:24C—4.6, "Standards for Accuracy of Provider Directory Information."

17 28 Tex. Admin. Code §3.3705, available online at: http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=28&pt=1&ch=3&rl=3705.

18 The Texas Department of Insurance has issued an informal rule update to expand these requirements to HMO plans. See p. 133: http://www.tdi.texas.gov/rules/life/documents/chapter11informal2.pdf.

19 In addition, the insurer must provide an explanation of benefits to the consumer, along with a request that the consumer notify the insurer if the provider bills the consumer for amounts beyond the amount paid by the insurer (i.e., balance bills the consumer). For EPOs only, the insurer may require that the consumer request mediation for the insurer and the provider regarding the costs beyond what the insurer pays the provider under the state's official balance billing mediation process, but the consumer will still be held harmless for those costs. Texas Department of Insurance, *Mediation for Out-of-Network Hospital-based Health Care Provider Claims* (Austin, TX: TDI, July 30, 2015), available online at: http://www.tdi.texas.gov/consumer/cpmmediation.html.

20 State of Texas, *HB No. 1624: An Act Relating to Transparency of Certain Information Related to Certain Health Benefit Plan Coverage*, June 19, 2015, available online at: http://www.capitol.state.tx.us/tlodocs/84R/billtext/html/HB01624F.htm.

21 Centers for Medicare and Medicaid Services, *Announcement of Calendar Year (CY) 2016 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter* (Washington: CMS, April 6, 2015), p. 138-140, available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2016.pdf.

22 42 US Code § 18031(c)(1)(D); 45 CFR 156.275.

23 National Committee for Quality Assurance, *Health Plan Accreditation (HPA)- 2016 Standards* (Washington: NCQA, July 28, 2015), available online at: http://www.ncqa.org/Programs/Accreditation/HealthPlanAccreditation2016Standards.aspx.

24 URAC, *Health Plan with Health Insurance Marketplace v7.2 Accreditation* (Washington: URAC, June 23-24, 2015), available online at: https://www.urac.org/forms/uploadFiles/2BC761000000D4.filename.Health_Plan_with_Insruance_Marketplace.pdf.

25 For information see: National Association of Insurance Commissioners, *Network Adequacy Model Review (B) Subgroup*, available online at: http://www.naic.org/committees_b_rftf_namr_sg.htm.

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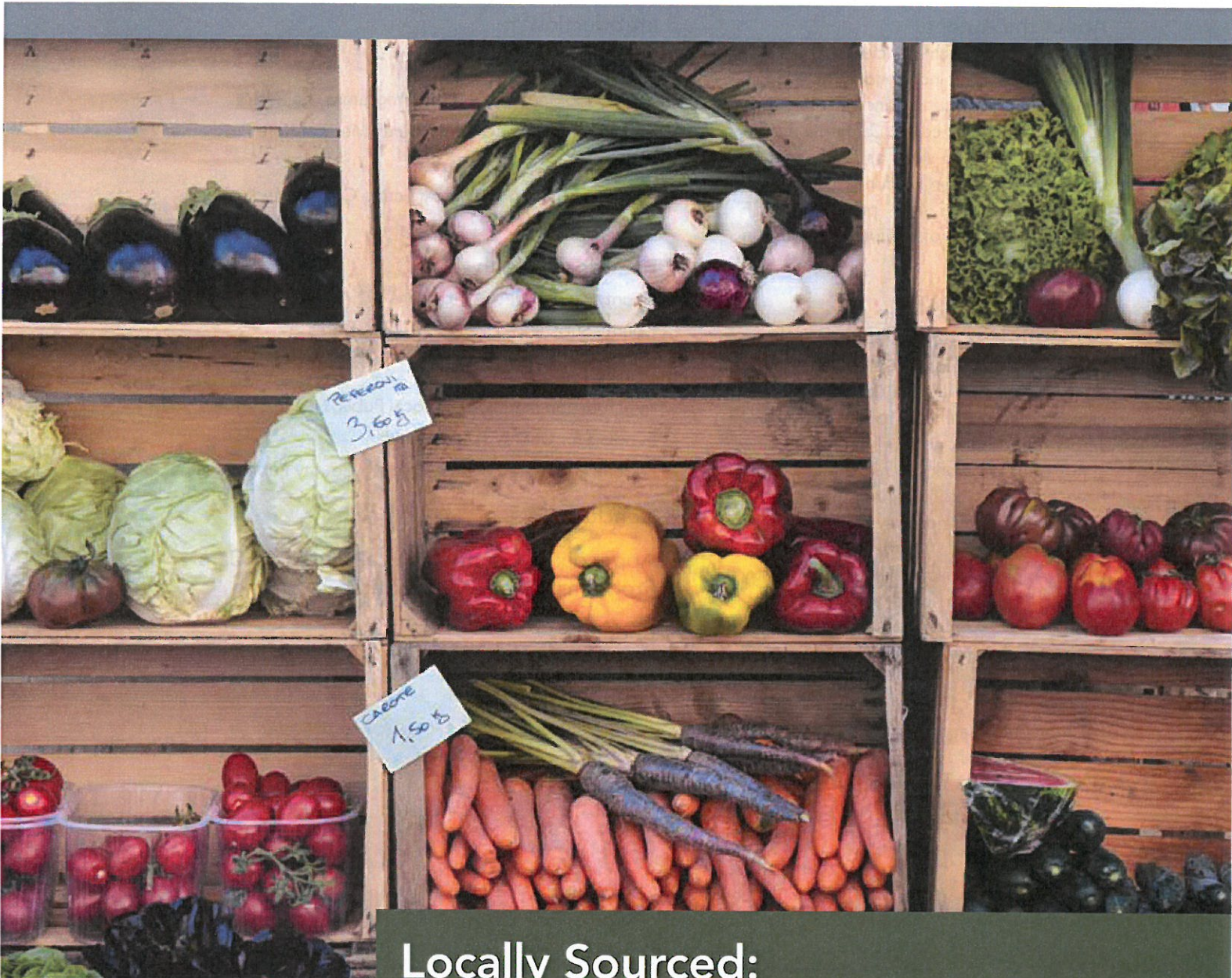
Locally Sourced:
The Crucial Role of Counties in
the Health of Californians

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Contents

About the Author

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About the Foundation

The California HealthCare Foundation (CHCF) is leading the way to better health care for all Californians, particularly those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

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Introduction

For decades, California's 58 counties have been core providers of health care services and public health programs in local communities. The state relies on the counties to support and administer an array of state and federal health care programs. In partnership with the state, counties have important responsibilities related to medical care, behavioral health (mental health and substance use disorder treatment), and public health. (See *California and Its Counties Under the ACA: A Leadership Framework*, available at www.chcf.org.)

This report provides an overview of county health services and programs across the traditional silos of medical care, behavioral health, and public health. Given the shifting landscape of health care delivery now underway, the report emphasizes the core health responsibilities counties assume and the arrangements counties typically use to meet those responsibilities. The report also highlights many state and federal policies affecting county programs, including some that are pending or in process, to provide a context for monitoring the ongoing changes counties and county health programs are likely to experience in the months and years ahead. This report provides a snapshot of county health services with program and policy details subject to change as the health care landscape in the state continues to evolve. Information in this report is current as of July 2015, except as noted.

Under state law, counties establish and operate health programs and services for low-income individuals who have no other form of health coverage. Some counties own and operate hospitals and clinics offering a comprehensive array of services for low-income and uninsured people, as well as publicly and privately insured patients, and contribute a significant portion of the nonfederal share of funding for the Medi-Cal program. Counties organize and oversee local mental health and substance use disorder programs, primarily for Medi-Cal and uninsured patients, and match federal and state funds for these programs. County public health departments operate public health laboratories and administer programs focused on population health, including communicable disease control, disease prevention and management, health and nutrition education, maternal and child health promotion, and disease surveillance.

To administer and support this wide array of health programs and services, counties must navigate a complex and frequently changing set of federal, state, and local funding streams and requirements. One significant, complicating aspect of the state-county partnership on health has been a recurring back-and-forth shifting of responsibility for program administration, funding, and decisionmaking between the state and counties.

With the unprecedented changes in health care delivery following passage of the Affordable Care Act (ACA), county health programs are in a period of flux and instability as new state and federal policies are implemented, revised, and reframed. In the coming years, the role of counties in providing health care and public health programs will continue to evolve as public and private health care markets mature under the ACA's framework of expanded health coverage and delivery system reform. Even in a changed health care environment, counties will continue to be core providers of health care and public health services for Californians.

Medical Care

California county governments have long assumed a central role in the delivery of medical care services for their residents. Counties provide health care for uninsured indigent people; participate in and help to administer the Medi-Cal program, including the California Children's Services (CCS) program; and organize other state and local medical care programs.

County Indigent Health Care Programs: The Basics

Under California law, dating back to the early 1900s, counties are responsible for the care and support of low-income residents who have no other source of care. This responsibility is often referred to as counties serving as "providers of last resort." In 1933, Section 17000 of the California Welfare and Institutions Code codified this basic county obligation: "Every county and every city and county shall relieve and support all incompetent, poor, indigent persons, and those incapacitated by age,

disease, or accident, lawfully resident therein, when such persons are not supported and relieved by their relatives or friends, by their own means, or by state hospitals or other state or private institutions." Subsequent legislation and related court decisions have reaffirmed the duty of counties to provide health care to indigent, uninsured legal residents.

Although counties maintain the basic Section 17000 obligation to serve indigent individuals, over time, responsibility for specific populations and services has shifted between the state and the counties. For example, between 1971 and 1982, the state administered a coverage program for medically indigent adults (MIAs) through Medi-Cal using only state and local funds. In 1982, the state returned responsibility for medical care of MIAs to counties. Beginning in 2014, however, most MIAs again became eligible for federally supported Medi-Cal coverage under the federal ACA Medicaid expansion. (See Table 1.)

Table 1. Major Milestones: Medically Indigent Adult (MIA) Programs in California, by Year

	EVENT
1901	**California Pauper Act of 1901.** The 1901 Pauper Act adds a comprehensive mandate for counties to "relieve and support" all incompetent poor persons, which was interpreted to include medical care services.
1933	**Welfare & Institutions Code Section 17000 obligation.** California enacts legislation to clarify county obligation to be the caretakers of last resort for indigent health care and income support.
1966	**Federal Medicaid and Medicare.** In 1965, the federal government enacts Medicaid and Medicare. California's new Medicaid program, Medi-Cal, includes a requirement that counties provide 10% matching funds for the program.
1971	**Medically Indigent Adults program.** California creates a new state/county-funded Medi-Cal eligibility category for adults 21-64, not linked to a federal aid program and not eligible for federal funding.
1978	**Proposition 13.** California voters pass a ballot measure to cut property taxes, which reduces the primary source of general purpose revenues for counties and intensifies competition among local funding priorities, including health care.
1979	**State funding for county health services.** In the aftermath of Proposition 13, with reduced local revenues, the Legislature passes Assembly Bill (AB) 8 (Chapter 282 of 1979), which allocates new state revenues to counties for local public health programs such as public health nursing, epidemiology, health education, and public health laboratories, and establishes a county maintenance of effort (minimum county spending level). The AB 8 allocation formulas and process, and the county maintenance of effort for those programs, later become components of state and local realignment of health and social service programs. AB 8 repeals the county share of cost for Medi-Cal and allows counties to use the revenues not only for public health but also for indigent health care and health services in county correctional facilities.
1983	**Medically Indigent Adult "transfer."** California eliminates Medi-Cal coverage for MIAs age 21-64, which essentially returns responsibility for this population to the counties (under Welfare and Institutions Code §17000). Counties receive funding estimated to equal 70% of state costs for MIA health care. Small counties have the option to contract back with the state through the County Medical Services Program (CMSP).
1988	**Proposition 99.** California voters pass Proposition 99 to increase tobacco taxes and dedicate the revenues to tobacco prevention and health care programs. Enabling legislation allocates $350 million in Proposition 99 funds to county medical services through the California Healthcare for Indigents Program for large counties and the Rural Health Services program for smaller counties. A county maintenance of effort is set at 1988-89 county spending levels for health services. Proposition 99 revenues decline over time so that by 2003-04, Proposition 99 funding for these programs declines to $27 million. The Legislature terminates Proposition 99 county indigent care funding effective July 1, 2009.
1991	**State and county program realignment.** Realignment transfers to counties responsibility for specified mental health, social services, and health programs, and provides counties with dedicated revenues from sales tax and vehicle license fees to fund the realigned programs.
2004	**Proposition 1A.** California voters pass a legislatively referred amendment to the state constitution that shifts $2.6 billion of local property tax revenues to the state in exchange for constitutional protections of future local revenues. The proposition limits the state's ability to impose new unfunded local mandates. The reduction in county revenues increases pressure on local funds and competition among programs, including health care, but also offers greater stability to county revenues going forward.

EVENT

2005 Hospital Financing Medicaid waiver. California secures a federal Section 1115 Medicaid waiver to provide funding for the uncompensated care costs of uninsured patients and to pilot a coverage initiative for low-income childless adults. Medicaid financing modifications focus primarily on how the state provides the Medicaid "match" (nonfederal share) for inpatient services for Medi-Cal and for Medicaid Disproportionate Share Hospital (DSH) payments for Medi-Cal and uninsured hospital services.

2010 "Bridge to Reform" Medicaid waiver. This successor waiver to the hospital financing waiver provides significant federal funding and support for the state's ACA implementation preparations. Among other things, the 2010 waiver: (1) supports county-operated and county-financed transition coverage, collectively known as Low Income Health Programs (LIHP), for county indigent patients until they become eligible for Medi-Cal in 2014 and (2) provides public health care systems (county and UC) with additional resources (matched by the systems) to make health care delivery changes in anticipation of reform.

2011 Public Safety Realignment. As part of the transfer to counties of responsibility for various criminal justice activities, counties assume increased responsibility for the nonfederal share of specialty mental health services for Medi-Cal and indigent people, as well as for specific substance use disorder programs. This realignment eliminates state general funds for core community mental health and substance use disorder services but provides counties with additional dedicated sales tax and vehicle license fee revenues to support the realigned programs.

2013 Realignment: Health redirection. The state revises realignment formulas and redirects to the state a portion of health realignment revenues that counties historically spent on indigent care. This 2013 health redirection recognizes increased state costs, and county savings, related to the ACA coverage expansions anticipated for 2014.

2014 ACA coverage expansions. California expands Medi-Cal coverage for low-income residents, including single adults, and establishes its ACA exchange, Covered California, to administer federal subsidies for low- and moderate-income families. Many Californians previously served by county indigent medical care programs have new public or private coverage, excluding low-income undocumented people who are only eligible for emergency Medi-Cal and may otherwise remain uninsured.

Counties have discretion to determine the manner and method by which they meet their Section 17000 obligations, including the relative emphasis on indigent health care compared to other local funding priorities. Counties determine eligibility requirements, services they will provide, and participating providers, including whether to serve undocumented people. County indigent health care programs are generally not subject to state requirements or minimum standards for eligibility and scope of services, although court decisions over the years have affected the programs and services counties must offer. The wide discretion afforded counties results in tremendous variation among county programs and in spending for indigent health care.[1]

All counties maintain at least a basic program to provide health care services for low-income county residents, subject to local variations and discretion. In addition, many counties — especially those with county-administered health care systems — support and administer broader coverage programs for individuals with unmet health care needs.

Counties use one of two broad approaches to provide health care for low-income and uninsured individuals. The 35 smaller, mostly rural counties offer indigent health care services through the County Medical Services Program (CMSP), which administers a defined program at the state level and contracts with local providers on behalf of participating counties. The 23 larger counties, historically referred to as medically indigent service program (MISP) counties, individually provide, organize, and/or pay for indigent medical care using a variety of service delivery strategies.

CMSP counties contract with the independent CMSP Governing Board, which uses realignment funds plus contributions from member counties to provide limited-term health coverage for eligible uninsured low-income adults who have no other health coverage. Traditionally, the CMSP program served citizens and other legal residents age 21-64 who were not eligible for Medi-Cal and who had incomes up to 200% of federal poverty level (FPL). The Governing Board, composed of 11 members, sets program eligibility requirements, determines the

scope of covered health services, and sets the payment rates for participating providers.

MISP counties differ significantly from one another in eligibility requirements, benefits provided, and service delivery methods. Most MISP counties serve adults age 21-64, but some have no age restriction. Some MISP counties define the indigent care obligation narrowly, offering eligibility of six months or less and limited benefits. Some county programs focus on assisting uninsured people with high-cost medical trauma or emergency medical care needs, while others emphasize limited primary and specialty care and do not cover emergencies. Some counties administer coverage programs that provide access and payment for defined benefits to eligible residents, while other counties provide low-cost services when residents access county hospitals and/or clinics through charity care or discount programs. Some programs limit services to very low-income legal resident adults (e.g., prior to the ACA, seven counties had maximum income eligibility levels of less than 200% of FPL, including one county at 63% of FPL), while the majority of MISP counties have supported health care services for individuals up to 200% of FPL, at a minimum.[2] Prior to the ACA, 14 counties covered some services for low-income undocumented adults.[3]

For decades, researchers, policymakers, and stakeholders have distinguished MISP counties based on the model the county chooses for indigent care: provider counties, payer counties, or hybrid counties. (The CMSP serves as the fourth model of county indigent care.) See sidebar for model descriptions and counties using each model.

Evolution of County Indigent Care Under the ACA

Under the ACA, counties are seeing reduced indigent care program costs because many low-income individuals have become eligible for expanded Medi-Cal coverage or for enrollment in subsidized coverage through California's Health Benefit Exchange, Covered California. Generally, citizens and legal resident adults with incomes below 133% of FPL, many who previously were eligible for one or more county medical care programs, are now eligible for Medi-Cal. (A 5% "income disregard" essentially expands eligibility to 138% of FPL.) Undocumented people with incomes up to 138% of FPL are eligible for emergency-only Medi-Cal services. People with incomes of 139%-400% of FPL are eligible for subsidized coverage in Covered California.

Four Models of County Indigent Care

County indigent health care delivery systems are often categorized into four general types:

▶ **Provider counties** operate public hospitals and clinics that provide county-sponsored indigent care, and participate in Medi-Cal and other publicly and privately funded health care programs.

Provider counties: Alameda, Contra Costa, Kern, Los Angeles, Monterey, Riverside, San Bernardino, San Francisco, San Joaquin, San Mateo, Santa Clara, and Ventura

▶ **Payer counties** contract with University of California (UC) hospitals, and/or private hospitals and clinics, to provide indigent medical care services.

Payer counties: Fresno, Merced, Orange, San Diego, and San Luis Obispo

▶ **Hybrid counties** operate public outpatient clinics but not public hospitals, and contract with UC and/or private hospitals to provide inpatient care.

Hybrid counties: Placer, Sacramento, Santa Barbara, Santa Cruz, Stanislaus, and Tulare

▶ **County Medical Services Program counties** contract with the CMSP Governing Board to administer health care services for eligible beneficiaries. CMSP administers the program through contracts with Advanced Medical Management for medical benefits and with MedImpact Health System for pharmacy benefits.

CMSP participating counties: Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Glenn, Humboldt, Imperial, Inyo, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Modoc, Mono, Napa, Nevada, Plumas, San Benito, Shasta, Sierra, Siskiyou, Solano, Sonoma, Sutter, Tehama, Trinity, Tuolumne, Yolo, and Yuba

Since January 1, 2014, more than 5 million Californians have obtained health insurance in Covered California or Medi-Cal. Total Medi-Cal enrollment is now projected to be 12.4 million in 2015-16, or nearly one-third of California's total population.[4] As of March 2015, 1.4 million were enrolled in Covered California.[5]

The diversity of county indigent care programs continues post-ACA. Most counties did not immediately make significant changes to local indigent care programs in response to the ACA, though some counties reduced the length of eligibility or limited the number of participating providers. County indigent care programs historically restricted enrollment to those ineligible for other programs, but post-ACA most counties now explicitly require prospective enrollees to apply for Medi-Cal or Covered California coverage and to show denial of eligibility in order to enroll in the county program. Los Angeles County, however, allows those with existing coverage to enroll in the county's low-income program and to use the program to cover deductibles for private insurance. (See Appendix A for a county-by-county breakdown of post-ACA county indigent care programs.)

CMSP continues to cover adults age 21-64 with incomes of 139%-200% of FPL who are not eligible for other publicly funded health coverage, but limits eligibility to three months. Like many of the individual county programs, CMSP requires members to apply for other public coverage, including Medi-Cal and private insurance through Covered California. Enrollees may have to pay a monthly share of cost, depending on income. In June 2015, the CMSP Governing Board adopted program changes scheduled for early 2016 to reach more of the remaining uninsured. The changes include increasing the CMSP eligibility income threshold to 300% of FPL, increasing the amount of assets applicants may keep, reducing the share of costs that participants must pay, and establishing a basic primary care benefit for CMSP share-of-cost participants and newly eligible undocumented people currently only eligible for emergency services.

Undocumented people are not eligible for most county indigent coverage programs. However, some counties that do not generally cover undocumented people do cover emergency-only care for them, similar to Medi-Cal. Other counties do not cover undocumented uninsured people in their core indigent care program but do have other programs serving those who are undocumented.

For example, Fresno County does not cover undocumented people through its indigent care program but does reimburse Community Medical Centers health system for specialty care services, and administers contracts with local federally qualified and rural health centers to serve undocumented people.[6] Similarly, in May 2015 Sacramento County adopted a limited public-private partnership to make primary and specialty care services available for an estimated 3,000 undocumented people.

Counties with public health care systems provide and administer services for uninsured individuals, including those who are undocumented, either explicitly through specific programs or as discounts and charity care in county facilities. Under state and federal law, all hospitals — private, nonprofit, and county-operated facilities alike — must assess, treat, and stabilize anyone who accesses emergency care, regardless of ability to pay or immigration status.[7] California hospitals must also have payment discount policies for financially qualified patients, including, at a minimum, patients with incomes up to 350% of FPL.[8] Hospital discount policies must limit expected payments to what the hospital would expect to receive from Medicare, Medi-Cal, or other government-funded programs. For example, Ventura County uses a self-pay discount program at Ventura County Medical Center as its primary approach to indigent care, providing discounts to those with incomes up to 700% of FPL, and charity care for eligible county residents with incomes below 100% of FPL.

Although there is still no statewide data on enrollment or participation in county indigent care programs, anecdotal information and research for this report suggests that many counties have seen a dramatic drop in applications and participation in indigent care programs. In recent months, following ACA implementation, some counties, similar to CMSP, increased the number of people potentially eligible by raising the income standard or made other changes to expand the programs. As the ACA coverage expansions provide more people access to comprehensive health coverage, counties are likely to continue adjusting eligibility requirements and the type of services they offer through their programs.

County Children's Health Initiative Programs

Prior to the ACA, some counties administered local coverage programs specifically for low-income uninsured children ineligible for Medi-Cal or the Healthy Families Program because of family income or immigration status. These coverage programs became known collectively as Children's Health Initiatives (CHIs). The first such Healthy Kids program was established in Santa Clara County in 2001.

CHIs operated as county-based public-private partnerships and generally provided low-cost insurance products for children, regardless of immigration status, in families with incomes up to 300% of FPL. Financing models, eligibility requirements, and funding levels differed by community, but generally included county funds, in-kind contributions, and in some instances, Proposition 10 Children and Families Program funding (also known as First 5 funding).[9] By 2006-07, there were 25 CHIs operating in 30 counties; as of November 2014, 12 counties had active CHI programs.[10] Counties scaled back or eliminated CHI programs because historic funders reduced support in anticipation of the ACA and as more children became eligible for Medi-Cal or subsidized coverage in Covered California. Post-ACA, most of the children served in the remaining CHIs are undocumented. As ACA implementation unfolds, many CHIs have implemented eligibility, outreach, and screening initiatives that encourage and support families to apply for coverage if their children are eligible for Medi-Cal or Covered California. Some CHIs have formally pursued certification and funding as enrollment and outreach entities or navigators through Covered California.

For more information about coverage programs for children prior to the ACA, see *Covering Kids: Children's Health Insurance in California*, available at www.chcf.org.

Structure and Financing of County Medical Care Programs

Limited statewide data exist on MISP county funding and expenditures for indigent care in the years preceding the ACA. Historically, the primary sources of funding for county indigent care in both MISP and CMSP counties were county general funds plus revenues the state allocated to the counties under the terms of the 1991 realignment of health and social services programs. Counties operating public health care systems also receive state and federal matching funds — to help defray expenditures they make on behalf of individuals who are uninsured or enrolled in Medi-Cal — and provide billions in local match dollars each year to access federal funds, including DSH funding.

State and Local Program Realignment

As noted earlier, responsibility and financing for health care and public health programs has shifted, over time, back and forth between the state and the 58 counties. These changes are usually brought about through state legislation, often as part of the annual budget process, including through wide-ranging state and local program realignments. When realignment involves a shift in responsibility from the state to the counties, the state estimates what it would have spent on the realigned programs and dedicates a similar amount of revenues (such as sales tax and vehicle license fees) to counties for support of the realigned programs. The state distributes realignment funds to counties annually, including year-to-year revenue growth. The realignment programs, and subsequent changes to realignment funding or program parameters, directly affect county health programs and may affect them indirectly as well. Given the level of discretion counties have in funding and administering local health programs, big changes in available funds and state mandates can reshape these programs.

In 1991, California enacted the first state and county program realignment. This program transferred responsibility from the state to the counties for county indigent care, public health services, and community mental health services, and funding responsibility for specified social services, with dedicated revenues to support the realigned programs. (For details about the 1991 realignment, see *The Crucial Role of Counties in the Health of Californians: An Overview*, available at www.chcf.org.)

In the period leading up to ACA implementation, California enacted two additional realignment changes, with significant impacts on county revenues and health program responsibilities.

▶ **2011 Public Safety Realignment.** In 2011, California enacted "public safety realignment" to address court-ordered reductions in the state prison population and the growing costs of state prisons. This realignment transferred programmatic and financial responsibility from the state to the counties for various criminal justice activities and provided counties with dedicated sales tax and vehicle license fee revenues to defray the associated costs.

In the realm of health care, the 2011 realignment eliminated state general funds for community mental health and substance use disorder services such that, by July 1, 2012, counties had assumed full responsibility for the nonfederal share of specialty mental health services for Medi-Cal and indigent individuals, as well as for specific substance use disorder (SUD) treatment programs. (Counties had specific responsibilities for mental health programs and funding prior to this realignment. See the section on behavioral health for additional details and historical context for the state-county roles in mental health and SUD services in the lead-up to the 2011 changes.)

▶ **2013 Health Redirection (AB 85).** The 2013-14 budget redirected a portion of health realignment funds from the counties to the state to reflect the expansion of coverage under the ACA and potential county savings.[11] County costs and responsibilities for indigent health care are decreasing as more people gain health coverage through Medi-Cal and private insurance. At the same time, state costs for Medi-Cal are increasing as enrollment in the program grows. Public health care systems that provide the nonfederal share for Medi-Cal may also see a growth in Medi-Cal costs.

The 2013 health redirection established a process for estimating county savings related to decreased indigent care costs and redirected a portion of the estimated savings to the state. Counties could choose one of two options for calculating county savings and redirected amounts. MISP counties could choose either a 60/40 (state/county) split based on historic

health realignment allocations to the county, or an 80/20 (state/county) shared savings formula, based on historic (and actual) reported applicable health care costs.

All 12 counties with public health care systems chose the public hospital 80/20 shared savings formula because of financial uncertainty related to the dual responsibilities of providing the nonfederal Medi-Cal match and providing services to the remaining uninsured. The public hospital formula considers costs and revenues for Medi-Cal and uninsured patients. Of the 12 MISP counties without public health care systems, 7 chose the non-county hospital 80/20 formula, which considers costs and revenues for uninsured patients only, and 5 chose the 60/40 split. The 35 CMSP counties are subject to a version of the 60/40 split.

The state budgeted the redirected health realignment funds to defray state costs for the expansion of Medi-Cal and an increase in CalWORKs grants. From a total of approximately $1.6 billion in realignment revenues previously allocated to counties for health services (including indigent medical care and public health), AB 85 redirected $300 million to the state in 2013-14, and the 2015-16 state budget redirects approximately $742 million to the state. The interim redirection amounts to more than half of health realignment funds, though the exact amount will not be known until after the reconciliation process. (AB 85 provides for reconciliation to actual data within two years after every fiscal year. The first annual reconciliation will occur in July 2016 for the 2013-14 budget year. For 2013-14, the redirection is capped at $300 million but can decrease if data show that any counties had less savings than estimated.)

Table 2 compares the provisions of the three realignment programs. (See page 10.)

Table 2. Overview and Comparison of State and County Program Realignments Affecting County Health Programs

	1991 REALIGNMENT	2011 PUBLIC SAFETY REALIGNMENT	2013 HEALTH REDIRECTION
Overview	Transfers specific health and human services programs to counties, along with dedicated revenues, and adjusts the county share of costs for specific human services programs.	Transfers specific court and criminal justice programs to counties, as well as financing for mental health services, with dedicated revenues to support increased county costs for affected programs.	Redirects from counties to the state "savings" in county indigent care costs expected with ACA coverage expansions for low-income residents. Amount redirected is based on each county's choice of a savings formula.
Affected Programs	*Health:* public health, medically indigent services, CMSP, and local health services *Mental health:* community-based mental health, institutes for mental disease, state hospitals *Social services:* aid payments, county welfare administration, foster care, child welfare, adoptions, in-home supportive services, GAIN (pre-CalWORKs), county services block grant, juvenile justice, and California Children's Services	*Justice system:* trial court security, local community corrections, local law enforcement, district attorney, public defender, and juvenile justice *Mental health:* same programs as 1991 realignment — community-based mental health, institutes for mental disease, and state hospitals	*Health:* public health, medically indigent services, CMSP, and local health services
Details	For county health, mental health, and social services programs: ➤ Provides counties with dedicated revenues to fund health and mental health programs. Counties determine local program and service levels. ➤ Increases county share of cost for social services programs, funded with a portion of the dedicated revenues. ➤ Establishes specified accounts and allocation formulas, and permits limited fund transfers among program areas.	For county justice system: ➤ Shifts from state prisons to local jails all sentenced nonviolent, nonserious, non-sex offenders. ➤ Modifies parole statutes and creates the Post Release Community Supervision program. ➤ Shifts parole revocations to counties gradually. ➤ Establishes Community Corrections Partnerships and requires counties to prepare local plans. For county mental health: ➤ Requires counties to assume responsibility for nonfederal share of community mental health services and certain SUD services; updates 1991 realignment funding and shifts funding for mental health to new sales taxes. ➤ Increases funding for community mental health.	For county health services: ➤ Redirects a portion of total 1991 health realignment funding provided to counties to the state, effective 2014-15 ($300 million in 2013-14). ➤ Establishes county options for estimating savings: (1) 60/40 (state/county) split of historic health realignment funds or (2) a "shared savings" formula, with an 80/20 (state/county) split based on actual county costs for indigent care (and Medi-Cal for public health care systems). ➤ Maintains 1991 realignment provisions, as modified by 2011 realignment, but redirects realignment growth funds for public health to fund CalWORKs grant increases. ➤ Establishes a "true-up" to reconcile actual county costs under the "shared savings" approach; first true-up is scheduled for 2016.
Primary Revenues	*Sales tax:* 0.005% (½ cent) *Vehicle license fee (VLF):* 74.9% of revenues	*Sales tax:* 1.0625% of existing tax *VLF:* portion of VLF rate	*Sales tax and VLF:* portions of each allocated under 1991 realignment (varies by county)

Counties and Medi-Cal

As of December 2014, California's Medicaid program, Medi-Cal, had 11.9 million enrollees, an increase of 2.8 million since October 2013. Even though Medi-Cal is a state-administered program, counties — especially those with county-owned and -operated health facilities — are integral partners with the state in the Medi-Cal program. The partnership has many aspects:

▶ County-operated clinics and hospitals are core Medi-Cal providers, and county (and UC) hospitals fund the majority of the nonfederal match for Medi-Cal patients they serve.

▶ Some counties establish and administer Medi-Cal managed care plans (described below).

▶ County social services agencies are responsible for Medi-Cal eligibility determinations for the majority of beneficiaries (with the exception of aged, blind, and disabled recipients on Supplemental Security Income/State Supplemental Payment [SSI/SSP], who are determined eligible and enrolled by the Social Security Administration).

Medi-Cal beneficiaries can have very different experiences with the program depending on their county of residence. The differences may be due to any of the following factors:

▶ The wide variation in the number and type of providers participating in Medi-Cal, including whether there are county hospitals and clinics available

▶ The delivery system through which an individual receives care — managed care or fee-for-service

▶ The type of managed care program that operates in the county

Managed care has become the dominant delivery system in Medi-Cal. As of December 2014, Medi-Cal managed care plans enrolled 8.9 million Medi-Cal beneficiaries, 75% of all those covered by the program. The remaining 25% of beneficiaries receive services through fee-for-service (FFS) Medi-Cal, in which health care professionals and facilities meet state licensing and certification requirements, provide services to beneficiaries, and bill the state, with the state reimbursing for the services at state-established rates.

As California expanded enrollment of Medi-Cal beneficiaries into managed care in recent years, the state's Department of Health Care Services (DHCS) developed multiple managed care approaches. DHCS currently recognizes four managed care models (for the distribution of these four models across the state, see Figure 1 on page 12):

▶ **County Organized Health System (COHS).** In each COHS county, DHCS contracts with one health plan established and administered by the county, with input from local government, health care providers, community groups, and beneficiaries. All Medi-Cal beneficiaries in the county are required to enroll in the COHS. Some COHS plans have grown to serve beneficiaries in multiple counties. As of December 2014, 1.9 million beneficiaries in 22 counties were enrolled in one of six COHS plans.[12]

▶ **Geographic Managed Care (GMC).** In the two GMC counties, Sacramento and San Diego, DHCS contracts with several commercial health plans and offers these choices to beneficiaries. As of December 2014, 942,642 beneficiaries were enrolled in the two GMC counties.

▶ **Two-Plan Model.** In two-plan counties, DHCS contracts with a county-organized local initiative plan and with a commercial plan, allowing beneficiaries to choose between the two. Local initiative plans are locally organized health plans created by counties that operate independent of the county. As of December 2014, there were 5.7 million beneficiaries in 14 two-plan counties.

▶ **Regional and county-specific.** In the remaining 20 primarily rural counties, DHCS contracts with commercial plans. In 18 of these counties, DHCS contracts with two commercial health plans. In Amador, El Dorado, and Placer Counties, Kaiser Health Plan has some Medi-Cal members in addition to the two other commercial plans. As Figure 1 illustrates, the state separately classifies Imperial and San Benito Counties as distinct model types, based on when the counties' expansion to managed care occurred. Imperial has two commercial plans, while San Benito County allows beneficiaries to choose either Anthem Blue Cross or FFS Medi-Cal. As of December 2014, there were 302,304 Medi-Cal beneficiaries in these 20 counties.

Figure 1. Medi-Cal Managed Care Models, by County

COHS Model
GMC Model
Two-Plan Model

Expansion Models
COHS
Regional
County

Source: California Department of Health Care Services.

California Children's Services

California Children's Services (CCS) is a statewide program that provides diagnostic and treatment services, medical case management, and physical and occupational therapy services to eligible children under age 21. To receive CCS services, children must be state residents and have a CCS-eligible medical condition. The CCS program only provides treatment and services related to the specific CCS qualifying conditions, which include certain injuries, physical limitations, and chronic health conditions or diseases, such as cystic fibrosis, hemophilia, cerebral palsy, heart disease, cancer, and infectious diseases. CCS also supports medical therapy services delivered at public schools. Most CCS children are also enrolled in Medi-Cal, though families with incomes too high to qualify for

Medi-Cal can participate in CCS if the child's medical expenses in a year exceed certain thresholds.

Counties administer key components of the CCS program in partnership with the state. In the 31 counties with populations greater than 200,000 (known as independent counties for CCS program purposes), county staff perform all case management activities for eligible children residing within the county. This includes determining all phases of program eligibility, evaluating need for specific services, determining the appropriate provider(s), and authorizing medically necessary care.

For the 27 counties with populations under 200,000 (referred to as dependent counties), DHCS provides

certain CCS management services through its regional offices located in Los Angeles, Sacramento, and San Francisco.[13] The dependent counties themselves make decisions on financial and residential eligibility, while the DHCS regional offices are responsible for case management and benefit determinations. Some dependent counties also opt to participate in the program's Case Management Improvement Project, which facilitates county collaboration with DHCS regional offices in determining medical eligibility and service authorization. The regional offices provide consultation, technical assistance, and oversight to these counties and to individual CCS-participating providers, hospitals, and specialty care centers in the region. In addition to program administration and cost sharing, most counties serve as direct providers of CCS medical therapy services.

By state law, CCS services are not included in Medi-Cal managed care contracts, so the state administers CCS as an FFS program. This approach is often referred to as a carve-out and also applies to other Medi-Cal services not included in managed care contracts, such as specialty mental health services. County CCS program funding includes a combination of county realignment funds, state general funds, and federal Medicaid and Children's Health Insurance Program funds.

Federal and State Policies Affecting County Medical Care Programs

County medical care programs operate in the broader environment of state and federal rules, programs, and funding streams available to support the services that counties administer. State policy and funding decisions affecting county programs must comply with detailed federal requirements, many of which changed substantially under the ACA. This section highlights new federal ACA requirements, as well as other state and federal programs and policies that affect county medical care programs.

ACA Coverage Expansions

The ACA expanded coverage to low- and moderate-income individuals and families through Medi-Cal and premium subsidies in Covered California. Millions more who were previously excluded from coverage or charged very high premiums because of health status or pre-existing conditions became eligible to purchase private coverage through the exchange or through the non-exchange private individual market.

The population newly eligible for coverage under the ACA overlaps with the population previously served in county indigent care programs, to varying degrees, depending on the pre-ACA eligibility rules in each county. Thus, as the ACA's coverage expansions reduce the number of uninsured people in the state, the expansions also reduce the number eligible for county indigent care programs or charity care in county-operated facilities.

Despite coverage increases, however, many Californians remain uninsured, because they are either not eligible for or not enrolled in public or private health coverage. Prior to ACA implementation, an estimated 6.3 million Californians were uninsured. Analysts suggest that this number will drop to 3-4 million in 2015 and to 2-3 million by 2019.[14]

Medi-Cal. Under the ACA, California retained its existing Medi-Cal eligibility categories and also implemented the optional Medi-Cal expansion (individual states choose whether to implement this expansion). The optional expansion extends coverage to adults at or below 138% of FPL (largely childless adults), excluding undocumented immigrants. Undocumented people who otherwise would qualify can enroll in Medi-Cal coverage for emergency and pregnancy-related services, and, when needed, state-funded long term care services. For the Medi-Cal expansion population, the federal government pays 100% of the costs through 2016, declining gradually to 90% in 2020 and subsequent years. As part of the AB 85 redirection, when the federal share is reduced to 90%, counties with public health care systems will provide the nonfederal share for newly eligible patients served in those systems. Low-income childless adults in this category were eligible for coverage in most pre-ACA county programs, so their enrollment in Medi-Cal will reduce enrollment in county programs.

The so-called mandatory expansion of Medi-Cal refers to individuals eligible under pre-ACA Medi-Cal rules but who, absent the ACA, were not or would not have enrolled in Medi-Cal. Many of these people are expected to enroll because of ACA features such as enrollment simplifications, enhanced outreach, and the individual coverage requirement. Generally, the state continues to pay 50% of the costs, known as the federal medical assistance percentage in Medicaid, for individuals who enroll in pre-ACA Medi-Cal eligibility categories. Counties with public health care systems pay the nonfederal match for

Medi-Cal services they provide for seniors and people with disabilities in managed care plans.

In 2013, nearly 800,000 children in the Healthy Families Program (HFP), California's version of the federal Children's Health Insurance Program (CHIP), transitioned into Medi-Cal. CHIP programs provide health coverage for low- and moderate-income children with 65% federal and 35% state matching funds. Until the transition, the Managed Risk Medical Insurance Board administered HFP as a separate, freestanding program. The Medi-Cal Optional Targeted Low Income Children's Program (OTLICP), which covers those children formerly eligible for HFP (with family incomes up to and including 250% of FPL), provides comprehensive medical, dental, mental health, and substance use disorder services. The HFP transition coincided with the Medi-Cal managed care expansion, including expansion into rural and smaller counties, so that by the conclusion of the phased transition, all children in OTLICP were in Medi-Cal managed care plans.

Additional expansions to Medi-Cal eligibility are planned or in process. The 2015-16 state budget allocates $40 million ($132 million per year when fully implemented) to enroll undocumented low-income children in full-scope Medi-Cal starting in May 2016. An estimated 170,000 children otherwise eligible for Medi-Cal except for their immigration status will be able to enroll. The budget requires DHCS to seek federal matching funds for this expansion if federal funds are not available to develop a state-only program. The state is also seeking federal approval to expand income eligibility for pregnant women from 60% of FPL to the same level as other adults, 138% of FPL.[15] Finally, in 2016, California is scheduled to implement a new state-funded program for certain low-income documented immigrants (subject to a federal waiting period of five years for Medicaid eligibility), linking them to premium and cost-sharing assistance (wraparound coverage) if they purchase coverage through Covered California.[16]

State health benefit exchange. Some low-income and uninsured individuals previously served by county indigent care programs are now eligible for subsidized coverage in Covered California. Covered California offers health coverage for individuals and small employers with fewer than 50 employees through contracts with commercial health plans. Federal premium assistance is available for individuals with incomes up to 400% of FPL

if they are not eligible for Medi-Cal or other qualifying coverage. In addition, individuals with incomes between 138% and 250% of FPL are eligible for reductions in their copayments and deductibles. Individuals not eligible for subsidies can also purchase coverage in the exchange. Undocumented individuals cannot purchase coverage in the exchange or receive premium assistance. Undocumented people who remain uninsured may seek services in county facilities or enroll in those county programs that cover the undocumented. As of May 2015, Covered California reported that 1.4 million individuals have enrolled in the individual exchange.

The remaining uninsured. A major factor in the future of county indigent health care is the number and the profile of people remaining without health coverage despite the ACA coverage reforms. These people are sometimes referred to as the remaining uninsured, or the residual uninsured. This group includes those who are not required to have coverage under the ACA (including undocumented individuals, who are ineligible for non-emergency Medi-Cal or exchange subsidies), and those who are required to have health insurance but do not purchase coverage or enroll.

As of January 2014, the ACA requires most individuals to maintain either public (Medi-Cal, Medicare, or other) or private health coverage or to pay a federal tax penalty. However, certain individuals are exempt from what is called the individual responsibility or individual mandate provision. An exemption may be based on religion, incarceration, immigration status, or financial hardship. Federal law generally defines financial hardship as cases where families have incomes that are below tax filing levels, and their insurance premiums, or the employee share of employer-provided coverage, would exceed 8% of household income.

Some people who are not exempt still will remain uninsured. Some may choose to pay a federal penalty rather than get coverage. Others have financial challenges in paying their share of premiums, or copayments and deductibles, or both, whether or not they are receiving premium subsidies. Among those remaining uninsured are some low-income families with employer coverage who fall into what is known as the "family glitch." These are families whose monthly premium costs (for the employee and dependents) exceed 8% of income but who are nonetheless ineligible for federal premium assistance in the exchange because the *employee-only*

premium for the job-based coverage remains below the 8% cut-off. As a result, family coverage is unaffordable, and family members remain uninsured. Finally, because enrollment in Covered California is available only during specific open and special enrollment periods, some individuals and families are uninsured during gap periods if they did not enroll within the specified timeframes.

According to the UC Berkeley-UCLA California Simulation of Insurance Markets (CalSIM, version 1.91),[17] the majority (62%) of the remaining uninsured will be exempt from federal tax penalties associated with not having coverage. CalSIM estimates that in 2015 the remaining uninsured includes 1.4 to 1.6 million undocumented individuals and as many as 1.3 to 1.8 million people eligible for Medi-Cal or Covered California subsidies but not enrolled.

Medi-Cal Waivers Affecting County Health

Since 2005, California secured and implemented two five-year federal Medicaid demonstration waivers under Section 1115 of the Social Security Act with significant implications for county health services. The current waiver expires in October 2015, and a waiver renewal request is pending with the federal Centers for Medicare & Medicaid Services. (See sidebar.) The 2005 Hospital Financing Waiver restructured state reimbursement for public health care systems, including county health care systems, serving Medi-Cal and uninsured individuals, and altered the mechanism by which California matches federal Medicaid funds.

The 2005 financing structure allowed designated public health care systems to obtain 50% federal matching funds for the costs of providing inpatient health services to Medi-Cal patients. The waiver shifted the nonfederal share of Medi-Cal for 22 county and UC hospitals (designated public hospitals) from state general funds to certified public expenditures (CPEs). In the 2005 waiver, CPEs include costs counties (and UC) incur to provide services to Medi-Cal patients for inpatient fee-for-service stays; the state draws down and returns to the public health care systems federal Medicaid matching funds equivalent to approximately 50% of the CPEs.

The waiver ended the use of intergovernmental transfers (IGTs) by public health care systems to support the DSH program for private hospitals serving Medi-Cal and uninsured patients. The vast majority of the state's DSH allotment was allocated to public health care systems that provided the nonfederal match through CPEs and to

California's Next Medicaid Waiver: Medi-Cal 2020

In the lead-up to the ACA, public programs and health systems in California operated under the terms of federal Medicaid Section 1115 waivers. The current Bridge to Reform waiver expires in 2015, and on March 27, 2015, the California Department of Health Care Services (DHCS) submitted a five-year waiver renewal application, dubbed Medi-Cal 2020, to the federal Centers for Medicare & Medicaid Services (CMS). The state's proposal seeks approximately $17 billion in federal investment for three primary strategies:

▶ **Delivery System Transformation and Alignment Programs.** Building on the 2010 DSRIP program, this focuses on six areas for transformation and improvement: managed care, fee-for-service, public safety net, workforce development, access to housing and supportive services, and whole person care pilots.

▶ **Public Safety Net Global Payments for the Uninsured.** Unifies Disproportionate Share Hospital (DSH) and safety net care pool funding streams into a global payment system for public health systems to care for the remaining uninsured.

▶ **Shared Savings.** Proposes a new federal-state shared savings model that allows the state to share in a portion of the federal savings from the waiver initiatives, if savings accrue. The state could use the savings for other investments in Medi-Cal delivery system improvements.

As of this writing, DHCS is in discussion with CMS about the waiver proposal. California legislation is pending to enact the final waiver provisions approved by CMS.

For more information and updates, see the DHCS webpage on the 2015 waiver renewal at www.dhcs.ca.gov.

district hospitals with the match provided by state general funds. Private hospitals received DSH replacement funds paid for with state general funds. The change in DSH funding distribution between public and private hospitals is known as the DSH swap.

The 2005 waiver also established a Safety Net Care Pool of federal funds to similarly reimburse designated public

hospitals, including county hospitals, for care provided to the uninsured at the applicable federal matching rate, generally 50%.

California's successor 1115 waiver, the 2010 Bridge to Reform waiver, includes specific initiatives to prepare California's health system for ACA reforms. Among these initiatives are:

▶ **Low Income Health Program.** The Low Income Health Program (LIHP) was a transitional coverage program for individuals who became eligible for ACA coverage in 2014. Participating counties administered and financed local coverage programs starting in 2011 (some counties started later) through the end of 2013, for low-income adults scheduled to become newly eligible for Medi-Cal (adults with incomes below 133% of FPL) and, in some counties, individuals scheduled to become eligible for subsidized coverage through Covered California in 2014 (133%-200% of FPL). Counties provided matching funds for the coverage to draw down federal Medicaid funds.

Eventually, 53 of California's 58 counties participated; Fresno, Merced, San Luis Obispo, Santa Barbara, and Stanislaus Counties did not. CMSP operated a single program for its 35 participating counties, known as Path2Health. Ultimately, the participating counties enrolled more than 650,000 people in LIHP. LIHP county programs tested a variety of approaches to improve county care systems, including assigning enrollees to a medical home and testing strategies to improve care coordination for high-risk target populations. The state automatically enrolled eligible LIHP participants in Medi-Cal on January 1, 2014, and notified those eligible for Covered California of the option to apply for subsidized coverage. The state assigned LIHP enrollees who enrolled in Medi-Cal managed care to the county systems that had been serving them.

▶ **Uncompensated care.** The 2010 waiver continues the Safety Net Care Pool established under the 2005 waiver, which partially reimburses public health care systems for uncompensated care costs. In addition, the waiver provides federal matching funds up to $400 million for the state to recoup costs for designated state health programs serving low-income and uninsured populations, such as the Every Woman Counts breast cancer screening and treatment program, Family Planning Access and Treatment, and the IMPACT Prostate Cancer Treatment Program.

▶ **Delivery System Reform Incentive Pool (DSRIP).** The waiver provides up to $3.4 billion in federal funds for public health care systems, including county hospitals, contingent upon achievement of specific milestones and deliverables related to infrastructure development, innovation and redesign, and population-focused improvements. The DSRIP supports the efforts of public health care systems to implement reforms under the ACA, including managing the LIHP. To qualify for DSRIP incentive payments, hospitals need to demonstrate achievement on measurable benchmarks. Public systems must also provide local matching dollars for the incentive payments. (For more information, see the California Association of Public Hospitals and Health Systems webpage on DSRIP at www.caph.org.)

▶ **Managed care expansion.** The waiver calls for mandatory Medi-Cal managed care enrollment for most seniors and people with disabilities (SPDs) in counties that already had mandatory managed care for Medi-Cal families and children. DHCS implemented the transition beginning in June 2011. Public health care systems provide the nonfederal match for SPDs in managed care for services provided in public hospitals and clinics.

▶ **California Children's Services (CCS).** The 2010 waiver allows CCS pilot programs to test up to four health care delivery models to improve care coordination, health outcomes, and patient satisfaction in the CCS program. As of this writing, DHCS has not implemented CCS pilots, but several are in planning stages. Statutory authority for the existing CCS carve-out from Medi-Cal managed care plans sunsets in December 2015, and DHCS is currently engaging stakeholders to consider the options for CCS program improvements.

In addition to the original elements of the 2010 waiver, during the five-year period of the waiver, California submitted and received approval for certain amendments, as outlined in Table 3 on page 17. (For details on the waivers, see *A Bridge to Reform: California's Section 1115 Waiver*, available at www.chcf.org.)

Table 3. Amendments to the 2010 Bridge to Reform Waiver, by Date

	PROGRAM	PURPOSE
April 2012	Community-Based Adult Services Centers	Outpatient day programs with comprehensive medical and social supports for eligible frail elderly and disabled Medi-Cal beneficiaries
January 2013	Optional Targeted Low Income Children's Program (OTLICP)	Transition of children up to 250% of FPL from Healthy Families Program to Medi-Cal
April 2013	Indian Health Services uncompensated care	Payments to Indian Health Services and tribal facilities for primary care visits for uninsured individuals up to 133% of FPL
August 2013	Medi-Cal managed care expansion	Expansion of Medi-Cal managed care into 28 additional, primarily rural, counties
January 2014	LIHP enrollees transfer	Addition of LIHP enrollees up to 133% of FPL to Medi-Cal managed care
	Outpatient mental health	Expansion of Medi-Cal managed care benefits to include outpatient mental health services
March 2014	Coordinated Care Initiative	Integration of health and long-term support services to rebalance service delivery away from institutional care to home and community in seven counties

Source: *Medi-Cal 2020: Key Concepts for Renewal*, California Department of Health Care Services, March 27, 2015.

Policies Affecting County Health Care Systems

This section highlights policies and programs that specifically affect what are known as provider counties — those that own and operate a health care system with one or more public hospitals and affiliated clinics. The number of county health systems has declined significantly over the last 50 years: from 50 counties with 66 hospitals in 1964 to 12 counties with 16 county-operated hospitals in 2012.[18] However, provider counties still account for approximately 60% of the state population.

Counties with public health care systems have a unique set of challenges and responsibilities. A county's role as a direct provider influences its administration of the local health services described in this report — health care, behavioral health, and public health services. Public health care systems typically provide a range of health care services, including primary care, outpatient specialty care, emergency, and inpatient services. Public health care systems may also provide long term care services or offer specialty tertiary services for the regions they serve, such as trauma or burn and disaster-response services.

County public health care systems serve as central players in the health care safety net for Medi-Cal and uninsured populations. As such, county hospitals and health systems navigate a complicated array of funding streams and targeted programs that support and stabilize public and private safety-net providers.

▶ **Disproportionate Share Hospital (DSH) funding.** The federal DSH program provides supplemental reimbursement to hospitals, including county hospitals, that serve significant numbers of low-income uninsured and Medi-Cal patients. States receive an annual DSH allotment to reimburse qualifying hospitals up to their actual uncompensated care costs for uninsured and Medicaid patients.

Although subject to complex formulas, transfers, and requirements, the DSH program in California generally requires public health care systems (county and UC) to provide the state's DSH match for Medi-Cal through a combination of CPEs and IGTs. The state provides the DSH match for eligible district and private hospitals. In addition, the state's 2010 Bridge to Reform waiver allows public health care systems to draw down additional federal funds (from the waiver's Safety Net Care Pool) based on CPEs for services to the uninsured, including services otherwise not eligible for DSH payments such as nonhospital clinics and physician services. The state uses a formula to allocate any remaining Safety Net Care Pool funds among the public health care systems. DSH funds are subject to federal limits requiring public health care systems to account for all other sources of matched reimbursement, including the system's own matching contribution, before claiming DSH funds for uncompensated care.

Anticipating fewer uninsured people thanks to expanded public and private coverage provisions, the ACA reduced DSH funding nationwide. The ACA originally scheduled this reduction for October 2013, but subsequent federal legislation delayed it until October 2017 (federal fiscal year 2018). For 2018, the anticipated nationwide DSH reduction is set at $2 billion, gradually increasing to $8 billion in federal fiscal year 2025; the Centers for Medicare & Medicaid Services (CMS) has not yet released specific state reductions. For 2015, California's federal DSH allocation was approximately $1.19 billion: $1.18 billion for public health care systems (matched by public hospitals) and $12.5 million for district hospitals matched by state general funds. Private hospitals are eligible to receive a small share ($80 million) of the federal DSH allotment but have declined it in recent years. They separately receive approximately $550 million in a Medicaid supplemental payment referred to in California as "DSH replacement" or "virtual DSH" funds (federal and state funds).

▶ **AB 85: Priority managed care assignment.** Under the terms of the 2013 health redirection legislation, county health care systems have priority for assignment of Medi-Cal managed care beneficiaries who do not choose a plan or provider. The goal is to help county systems maintain a sufficient number of Medi-Cal patients to remain financially viable and to promote continuity of care for county health system patients. In 2014, the state transferred LIHP participants eligible for Medi-Cal to managed care and kept them with the county primary care systems where they had been receiving services. Going forward, managed care plans must assign 75% of enrollees who do not choose a provider to county primary care providers, until the county reaches an enrollment target based on the number of uninsured individuals and LIHP enrollees previously served by the county. In 2014, of the 454,430 people eligible to be placed in county systems by default, Medi-Cal managed care plans assigned 405,748, or an average of 89.3% statewide, to the county systems.[19] The default rate among individual health plans ranged from a low of 35% in Monterey County, where the county hospital reached assignment capacity, to 100% in the counties of Riverside, San Bernardino, and San Mateo.

▶ **Hospital Presumptive Eligibility for Medi-Cal.** Prior to ACA implementation, certain Medi-Cal providers could grant temporary presumptive eligibility to patients meeting certain criteria, including children and pregnant women. Effective January 2014, California implemented an ACA presumptive eligibility program, specifically for hospitals, that provides temporary Medi-Cal eligibility for up to 60 days for people the hospital determines may qualify for Medi-Cal based on their self-reported income, household size, and state residency as reported at the point of care. To participate in the presumptive eligibility programs, qualified hospitals register with DHCS and agree to meet specified terms and conditions, including training requirements for hospital staff. Hospitals can submit online applications for the following groups:

▶ Income-eligible children up to age 18

▶ Parents and caretaker relatives of children

▶ Pregnant women

▶ Former foster youth age 18 to 26 who were in foster care on their 18th birthday

▶ Adults age 19 to 64 who are not eligible for Medicare or in any of the other eligible groups

DHCS approved all of California's county hospitals for the presumptive eligibility program. Presumptive eligibility ensures hospitals that qualifying individuals are eligible for Medi-Cal coverage for at least a temporary period and thus reduces the financial risk of providing uncompensated care. For county hospitals, it also means they can transfer stabilized Medi-Cal patients to other facilities, and providers that participate in the local Medi-Cal delivery system may provide services not available at the public hospital. The 2014 November Medi-Cal estimate assumed a monthly caseload of 34,000-36,000 individuals made eligible for Medi-Cal through hospital presumptive eligibility at all the state's hospitals (not just county hospitals).[20] According to DHCS, as of May 9, 2015, hospitals had enrolled 268,029 beneficiaries in the PE program, with 132,806 individuals, approximately half of the statewide total, enrolled via county hospitals.

► **Hospital quality assurance fee.** California's hospital quality assurance fee program (hospital fee), established through state legislation in 2009, imposes fees on private hospitals serving Medi-Cal and uninsured patients.[21] The revenues from the fees match federal Medicaid funds and support supplemental payments to participating private hospitals. The hospital fee revenues also provide funding for direct grants to designated public (county and UC) and nondesignated public (district) hospitals, defray state costs for children's health care coverage, and reimburse DHCS for the direct costs of administering the program. The most recent state legislation imposing the fee for the period January 1, 2014, to December 31, 2016, estimated a net benefit to California hospitals of $10 billion over three years.[22]

Behavioral Health

Counties have significant responsibilities related to the provision of mental health and substance use disorder (SUD) services, collectively referred to as behavioral health services.

Counties administer an array of federal, state, and local funding streams for behavioral health, much as they do for indigent medical care. In contrast to county indigent medical care programs, however, behavioral health services are financed and managed through a shared state-county model. Also, counties have greater discretion to design and administer indigent medical care programs, while county behavioral health services are subject to state and federal standards affecting eligibility and benefits. But all counties, whether or not they operate county health care systems, must use county revenues, including realignment funds, to provide the nonfederal Medicaid match for specified behavioral health services.

In 2012, California eliminated the state Department of Mental Health and the Department of Alcohol and Drug programs and transferred these program responsibilities to DHCS, with the goal of improving both state and local coordination and integration of the services. Toward this end, all but four counties (Los Angeles, Napa, Plumas, and Tehama) have established a single county behavioral health agency to manage mental health and SUD programs. However, coordinating and integrating these two very different program and service areas is still a work in progress at the state and local levels.

This section outlines the role of counties in each program area — mental health and SUD — and highlights key policies affecting county behavioral health services.

County Mental Health Programs

California's public mental health system is decentralized. Historically, counties have been the primary providers of public mental health services for Medi-Cal and non-Medi-Cal clients. Mental health service delivery and specific mandated programs are described in both state and federal law, but over the last several decades California has transferred most financial and administrative responsibility for mental health service delivery to the counties.[23]

Prior to the 1991 realignment, county mental health programs competed for limited funding in the annual state budget process. To address this, the 1991 realignment moved the funding and program decisions to the counties; the realignment required counties to provide mental health services for specified target uninsured populations — seriously mentally ill adults, seriously emotionally disturbed children, and people in acute psychiatric crisis — but only to the extent that available resources allowed.

As California expanded managed care approaches for Medi-Cal medical care services in the early 1990s, the state pursued a similar path for Medi-Cal specialty mental health services. In 1995, under the terms of a federal Medicaid 1915(b) Freedom-of-Choice waiver (also known as the Specialty Mental Health Services Consolidation waiver), California consolidated inpatient and outpatient mental health services into one program of specialty mental health services at the county level. Counties administer these services through a county mental health plan (MHP) and provide the nonfederal match for Medicaid specialty mental health services using county revenues, including realignment funds.

Under the Freedom-of-Choice waiver terms, all Medi-Cal beneficiaries must receive what the state defines as specialty mental health services through the local MHP — the state carves out specialty mental health services from Medi-Cal managed care plan contracts. These specialty mental health services include psychiatric hospital services, residential treatment services, crisis intervention, and targeted case management, among other services, along with medication support services and individual and group therapy. Each county MHP directly provides

or contracts for specialty mental health services for Medi-Cal patients who meet diagnostic and impairment criteria outlined in state regulations.[24]

As of 2014, Medi-Cal managed care plans are responsible for providing mental health services for Medi-Cal enrollees with "mild to moderate" levels of impairment who do not meet the diagnostic and functional criteria for specialty mental health services. Managed care plans provide individual and group therapy, psychological testing, medication management, and psychiatric consultation, in many cases through contracts with behavioral health managed care organizations. Similar services are available for individuals enrolled in Medi-Cal on a fee-for-service basis. (See Table 4 for details.)

The 1991 realignment also required counties to establish a community mental health program for non-Medi-Cal clients and a local mental health advisory board. Counties have discretion to determine local funding levels, eligibility, and services for non-Medi-Cal mental health services, consistent with the priority target groups outlined in state law and based on the funds available.

Funding for County Mental Health

Public mental health services are financed through a variety of sources, which include realignment and other county revenues; Mental Health Services Act (MHSA) funds; categorical state funds (allocated for specific programs or services); and federal funds, including Medicaid and CHIP federal matching funds, and Substance Abuse

Table 4. Mental Health and Substance Use Disorder Benefits in Medi-Cal (2015): Services and Populations, by Coordinating Entity

	COUNTY MENTAL HEALTH PLANS (MHP)	COUNTY SUBSTANCE USE DISORDER (SUD) SERVICES	MEDI-CAL MANAGED CARE PLANS (MCP)
Target Population	Children and adults who meet medical necessity or EPSDT* criteria for Medi-Cal specialty mental health services	Children and adults who meet medical necessity or EPSDT criteria for Drug Medi-Cal substance use disorder services	Children and adults in managed care plans who meet "mild to moderate" medical necessity criteria or EPSDT criteria for mental health services
Outpatient Services	➤ Mental Health Services (assessments plan development, therapy, rehabilitation, and collateral) ➤ Medication Support ➤ Day Treatment Services and Day Rehabilitation ➤ Crises Intervention and Crises Stabilization ➤ Targeted Case Management ➤ Therapeutic Behavior Services	➤ Outpatient Drug Free ➤ Intensive Outpatient (newly expanded to additional populations) ➤ Residential Services (expansion to additional populations on hold) ➤ Medication-Assisted Treatment, including methadone, buprenorphine, disulfiram, naloxone, and naltrexone	Services carved-in effective 1/1/2014: ➤ Individual/group mental health evaluation and treatment (psychotherapy) ➤ Psychological testing when clinically indicated to evaluate a mental health condition ➤ Outpatient services for monitoring medication treatment ➤ Psychiatric consultation ➤ Outpatient laboratory, medications, supplies, and supplements ➤ Screening Brief Intervention and Referral for Treatment (SBIRT), for people with, or at risk of developing, alcohol use disorders
Inpatient Services	➤ Acute Psychiatric Inpatient Hospital Services ➤ Psychiatric Inpatient Hospital Professional Services ➤ Psychiatric Health Facility Services		
Residential Services	➤ Adult Residential Treatment Services ➤ Crises Residential Treatment Services		
New Services		➤ Inpatient Detoxification Services (limited to general acute care hospitals, pending expansion to other settings)	

*The EPSDT program is the child health component of federal Medicaid for eligible children under age 21.

Note: Does not include provisions of DMC-ODS waiver (see page 24).

Source: California Department of Health Care Services, 2014 (edited), updated here for 2015.

and Mental Health Services Administration (SAMHSA) grant funds. Following the 2011 public safety realignment changes to mental health funding, counties now administer about 90% of the revenue dedicated to public mental health services in the state.[25] Combined federal, state, and local funding for community mental health services in California totaled approximately $6 billion in 2014-15.[26]

Counties use realignment, MHSA, and other local funds to draw down federal Medicaid matching funds for the specialty mental health services they administer for Medi-Cal clients. The county incurs and certifies expenditures to be matched with federal financial participation at the established federal matching assistance percentage for the relevant Medi-Cal eligibility group.

Mental Health Services Act. The MHSA, passed by California voters as Proposition 63 in 2004, expanded mental health services and funding through a 1% state tax on personal income in excess of $1 million. The MHSA expanded community mental health services for state residents who have severe mental illness and whose needs are not met by other programs. The MHSA established a maintenance-of-effort obligation (baseline level of funding that counties must maintain) for community mental health services to ensure that MHSA funds supplement but do not supplant resources in existence at the time of its passage. The state allocates the majority of MHSA funds to counties consistent with approved county plans. MHSA funding supports five program areas: (1) community services and supports, (2) prevention and early intervention, (3) innovation, (4) workforce education and training, and (5) capital facilities and technology. The state Mental Health Services Oversight and Accountability Commission oversees implementation of the MHSA and allocation of funds to counties.

Realignment and mental health. Under the 1991 realignment, each county's previous funding levels determined the base allocations for all of the realigned programs.[27] Realignment also set the priority and allocation formulas for any revenues above the base allocations, referred to as growth revenues. Generally speaking, caseload increases for in-home supportive services and child welfare programs have first priority for 1991 realignment growth revenues, and, over time, mental health realignment funds failed to keep pace with demand for mental health services. Counties also used increasing proportions of realignment funds as the mandatory Medicaid match for mental health services, and to pay the costs of mental health services for Medi-Cal enrollees for non-Medicaid services, such as involuntary psychiatric inpatient and long term care services. County costs for Medi-Cal enrollees gradually reduced the available revenues for mental health services for uninsured and other populations with unmet mental health needs.

The 2011 public safety realignment provides additional revenue for community mental health services (via sales taxes), including a set 5% annual growth in mental health funding, as long as certain social services funding levels are attained. In 2012, voters passed Proposition 30, which provides state constitutional protection for the 2011 realignment structure and funding and prohibits the state from passing laws that increase county costs unless it also provides additional funding.

As a result of the combined 1991 and 2011 realignment programs, counties assume full financial responsibility for the nonfederal share of costs for community mental health services for Medi-Cal beneficiaries, Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) mental health services for children, and services for the uninsured. There are no remaining state general funds supporting core community mental health services.

Policies Affecting County Mental Health

This section highlights federal ACA requirements, California laws and regulations implementing the federal law, and other state policies that affect county mental health programs. As the primary providers of public mental health services in California, counties directly implement state and federal policy changes affecting mental health services.

ACA benefit expansion in Medi-Cal. In implementing the ACA, California expanded coverage for mental health services for all Medi-Cal beneficiaries (and for SUD treatment services, discussed in more detail below). Prior to the benefit expansion, which took effect January 1, 2014, Medi-Cal beneficiaries with mental health conditions not meeting criteria for county specialty mental health services had very limited psychology and psychiatry services in FFS Medi-Cal and limited outpatient mental health services provided by primary care providers.

The mental health benefit expansion requires Medi-Cal managed care plans to cover mental health services other than the specialty mental health services administered

by counties. This benefit expansion is generally meant to serve individuals with mild to moderate impairments who would not qualify for specialty mental health services. (The ACA benefit expansion made no change to the specialty mental health benefit.)

Federal rules allow states to choose the model or "benchmark plan" for essential health benefits from a specified list of existing public and private employer coverage plans in the state. The state selected the Kaiser Small Group Health Plan as California's benchmark for ACA essential health benefits.

The expanded Medi-Cal managed care services are primarily outpatient services that are typically provided in office settings. Medi-Cal managed care plans are also obligated to cover mental health assessments by licensed mental health professionals. (See Table 4 for an overview of mental health and SUD services in Medi-Cal and the entities responsible for each.)

As part of the implementation process, Medi-Cal managed care plans are required to revise existing memoranda of understanding (MOUs) with county mental health plans. The MOUs serve as the primary vehicles for outlining how the health plans and the counties will coordinate and oversee mental health services, engage in shared oversight, and resolve any disputes or conflicts. The state continues to work with counties, health plans, and other stakeholders toward common standards and approaches for implementing the new mental health benefits.

EPSDT mental health services. The federal EPSDT program requires states to provide Medi-Cal recipients under age 21 with medically necessary health and mental health services to correct or ameliorate a defect, physical or mental illness, or condition identified by an assessment, including services that may not otherwise be part of the state's Medicaid program. California counties administer the mental health component of EPSDT, subject to state and federal eligibility and scope-of-services requirements that are broader than the criteria for adults. Under the terms of the 2011 public safety realignment, counties must use realignment funds to support the non-federal share for EPSDT services.[28]

In July 2014, CMS issued guidance clarifying that states must cover Applied Behavioral Analysis (ABA) as an EPSDT benefit for Medicaid-eligible children diagnosed with autism spectrum disorder. Effective September 15, 2014, Medi-Cal managed care plans are required to cover medically necessary ABA services. DHCS is in the process of developing revised managed care rates to reflect the new requirement; the rates will be retroactive once developed.[29]

Services for involuntarily committed individuals. Under the Lanterman-Petris Short (LPS) Act,[30] counties are responsible for arranging and financing a number of services for people subject to involuntary detention because of mental illness. For example, California law authorizes local law enforcement and people designated by the county to take into custody, involuntarily hold for evaluation, and admit for treatment for up to 72 hours, people with mental disorders who are a danger to themselves or to others, or who are gravely disabled. Counties designate and the state approves the facilities that can admit people being involuntarily committed. State law includes detailed procedures for local law enforcement, county mental health programs, and treating facilities. An involuntary hold of this type is known as the 5150 process, a reference to the section of the state Welfare and Institutions Code that governs the procedure. Other areas of county responsibility include LPS conservatorships, assisted outpatient treatment, and short- and long-term involuntary inpatient treatment.

Mental Health Wellness grants. California's Investment in Mental Health Wellness Act of 2013 (MHWA) provided $150 million (state general fund, MHSA, and federal Medicaid match) for grants to counties, or their public or private designee, to expand and develop mental health crisis support programs.[31] The goal of this act is to support programs focused on "wellness, resiliency, and recovery in the least restrictive setting possible." Specifically, grant funds are available to increase capacity for client assistance and services in crisis intervention, crisis stabilization, crisis residential treatment, rehabilitative mental health services, and mobile crisis support teams. The grants, administered by the California Health Facilities Financing Authority (CHFFA), are available to support program capital improvement, expansion, and limited start-up costs. CHFFA awarded two rounds of grants in 2014, and a third is in process for 2015. As part of the 2013 MHWA, the Mental Health Services Oversight and Accountability Commission also administers a $54 million grant program (federal and MHSA funds) for mental health triage personnel in selected rural, suburban, and urban areas.

Specialty mental health waiver. In 2013, CMS approved the federal waiver renewal for the 1915(b) freedom-of-choice waiver that underlies the system of county MHPs, as described above. In June 2015, California received federal approval for a new five-year 1915(b) Specialty Mental Health Services freedom-of-choice waiver. The new federal waiver terms and conditions include enhanced performance measurement of county MHPs and require the state to develop a process for public reporting of county MHP performance dashboards. CMS had previously expressed concerns about the scope, frequency, and intensity of monitoring and oversight of MHPs by DHCS.

County Substance Use Disorder Programs

DHCS oversees the public system of care for the prevention and treatment of substance use disorders (SUD), but counties administer that system on the local level. While the state-county division of responsibility for SUD has some parallels to that for mental health services, the two systems have historically been financed and administered separately, and are still quite different. Unlike county mental health services, there is no local organized delivery system similar to county MHPs and significantly more limited provider capacity for SUD services in many regions of the state.

Public treatment of SUD predominantly has been provided in separate specialty service programs, some of which are based on social-model recovery (e.g., 12-step), and others that offer medication-assisted treatment (MAT) (e.g., methadone, buprenorphine). County SUD program types vary significantly and range from emergency counseling and initial assessment to detoxification services and residential or long-term outpatient treatment. As with other county health services, the delivery system and services available vary widely county to county.

Medi-Cal SUD Services

Most SUD services for Medi-Cal beneficiaries are provided through Drug Medi-Cal (DMC). In addition, managed care plans have new responsibilities to provide limited SUD services, and some specific services are available through FFS Medi-Cal.

Drug Medi-Cal services. Like mental health services, DMC services are generally carved out of Medi-Cal managed care and offered through county-administered SUD

programs. The DMC program will be transformed over the next few years via the Drug Medi-Cal Organized Delivery System (DMC-ODS) waiver, described below.

Under the current system, the Medi-Cal program contracts with county governments for the administration and delivery of DMC services. Counties have the option to administer DMC, but they must meet state and federal requirements and standards if they choose to do so.[32]

Counties administering DMC may only contract with SUD providers, generally SUD clinics, that have been certified by DHCS. However, even if a county decides not to contract with a certified DMC provider, DHCS is required, as a result of a 1994 lawsuit, to contract directly with any willing DMC provider in that county that meets minimum DMC requirements. In addition, DHCS contracts directly with providers in counties that do not participate in the DMC program.

The range of services offered by county DMC programs varies substantially. Services reimbursed by DMC must be medically necessary and provided by or under the direction of a physician. DMC only covers services provided at a treatment site certified by DHCS, and these include MAT services, outpatient treatment services, and perinatal residential services in facilities with fewer than 16 beds. Prior to the ACA expansion of mental health and SUD services, DMC residential and intensive outpatient services were generally limited to pregnant and postpartum women and youth under 21. State legislation implementing the ACA expansion of mental health and SUD services, however, expands intensive outpatient services to all Medi-Cal beneficiaries as outlined outlined in Table 4 and described in more detail below.[33]

Screening, Brief Intervention, and Referral to Treatment (SBIRT). Starting in 2014, under the ACA benefit expansion, Medi-Cal covers SBIRT for alcohol use disorders, though not yet for other substance use disorders. SBIRT, a comprehensive health promotion approach for delivering early intervention and treatment services to people with, or at risk of developing, substance use disorders, is covered through Medi-Cal managed care plans or Medi-Cal fee-for-service, depending on the delivery system of the patient.

Other Medi-Cal SUD benefits through managed care or fee-for-service. Medi-Cal also provides limited MAT in outpatient settings, covered by Medi-Cal managed care

or FFS, depending on the medication. (Some medications are included and some are carved out of managed care contracts.) Medically necessary voluntary inpatient detoxification in general acute care hospitals is also available to all beneficiaries, if medically necessary, through FFS Medi-Cal.

Funding for County SUD Programs

Counties use realignment funds, county funds, federal Medicaid matching funds, and federal SAMHSA grants, including the Substance Abuse Prevention and Treatment (SAPT) block grant, to support county SUD treatment programs. While not all counties provide DMC services, there are SUD services in all counties funded with SAPT grant funds. SUD services are provided by county-contracted providers, state-direct contracted providers, or by county SUD program providers. The state does not track county funds used to support non-Medi-Cal local SUD programs.

Federal and State Policies Affecting County SUD Programs

This section discusses federal and state policies that affect county SUD treatment programs.

2011 Public Safety Realignment. Under the terms of the 2011 realignment, the state retains the responsibility to certify and monitor SUD services, while counties must use realignment funds to pay for those services, including providing the state's match to federal Medicaid funds. Even in counties where DHCS directly contracts with providers for DMC, counties retain financial responsibility for the services because the state accesses county realignment allocations to make the provider payments.

Medi-Cal benefit expansion. Effective January 1, 2014, the Medi-Cal expansion made DMC benefits available to all Medi-Cal beneficiaries for whom treatment is medically necessary. However, CMS did not approve the expansion of *residential* treatment to all populations, and it limited coverage for inpatient detoxification services to general acute care hospitals. The expansion of SUD services under Medi-Cal, and the new requirement that Medi-Cal managed care plans cover SBIRT, present coordination and implementation challenges similar to those posed by the expansion of mental health services. Collaboration, communication, and care coordination between Medi-Cal managed care plans and counties is essential to ensure that Medi-Cal enrollees receive appropriate services in appropriate settings. County MHPs, county SUD programs, and Medi-Cal managed care plans need to coordinate screening and assessments, referrals, and case management.

Drug Medi-Cal Organized Delivery System waiver. In August 2015, the federal government approved California's amendment to the 2010 Bridge to Reform waiver to implement an organized DMC delivery system. Counties that opt in to the SUD waiver demonstration project will be required to create a single point of entry for beneficiaries seeking SUD services, implement selective provider contracting, and provide or arrange for all DMC benefits for individuals meeting medical necessity criteria. The new system will be implemented in a phased regional approach over several years. The waiver creates a continuum of reimbursable DMC services including outpatient treatment, case management, MAT, recovery services and recovery residences, withdrawal management, residential treatment, and physician consultation.

In addition, the waiver permits short-term residential SUD treatment in facilities of any size. Traditionally, federal Medicaid financing for mental health and SUD residential treatment has been limited to treatment in smaller facilities — those with 16 or fewer beds. This is called the Institutions for Mental Diseases (IMD) exclusion. (Exceptions were made for pregnant or postpartum women.) This has significantly limited access to residential care: According to DHCS, as of February 2014, there were 783 licensed SUD treatment facilities in California, with a total of 18,155 beds, but only 1,825 of those beds were in the smaller facilities eligible for Medicaid SUD reimbursement.[34]

California is the first state in the country to receive federal approval of an Organized Delivery System waiver, which will be effective for five years.

Drug Medi-Cal provider enrollment. There is a severe shortage of Medi-Cal SUD service providers throughout the state, and in some counties, there are no available providers. SUD provider shortages are exacerbated by delays in DHCS provider certification and recertification. When DHCS assumed responsibility for SUD programs, it conducted a review that turned up allegations of fraud in the DMC program.[35] DHCS then required all DMC providers to apply for recertification using a revised certification application and process. As a consequence, there is a continuing backlog of providers seeking certification,

and some providers report it can take a year or more to complete the application process.[36]

Services for prisoners and released prisoners. The ACA Medi-Cal expansion and the 2011 public safety realignment increased the demand for mental health and SUD services to treat prison and jail populations. The ACA expansion of Medicaid eligibility means that many who have been incarcerated will qualify for Medicaid coverage when released in the community. (Medicaid coverage is suspended or terminated when an individual is in jail or prison.) Due to the ACA behavioral health benefit expansions, these individuals will be eligible for continuing care for their mental illnesses and/or substance use disorders, in many cases for the first time. This new demand increases county costs for the nonfederal share of the services and places pressure on the mental health and SUD delivery systems.

The 2014-15 state budget establishes several programs to fund mental health and substance use services for inmates and parolees, including competitive grants to adult and juvenile authorities for mentally ill offenders, additional funds for SUD treatment in prisons, and community-based reentry programs focused on mentally ill offenders that include transitional housing programs.

Public Health

Public health services are distinct from other county health services because their focus is not on the provision of services to individuals but on population-based strategies to protect the overall health of the community. Core public health functions include preventive medicine, health education, control of communicable diseases, application of sanitation standards, and monitoring of environmental hazards.

California law requires local health departments to provide the following basic public health services: data collection and analysis, health education, public health nursing, communicable disease control activities, environmental health, public health laboratory services, maternal and child health promotion, chronic disease prevention, and nutrition education programs.[37] Local health departments also have primary responsibility to respond to local emergencies such as floods and other natural disasters, disease outbreaks, or bioterrorism attacks.

Structure and Functions of Local Public Health Systems

For public health purposes, California has 61 local health jurisdictions (LHJs): the 58 counties and the cities of Berkeley, Long Beach, and Pasadena. All LHJs are led by a physician health officer appointed by city and county authorities. Most counties also have a health administrator to manage and oversee the array of public health programs. Smaller counties have the option to contract with the state for environmental specialists and public health nurses who work in and for the county but who are state employees. California's public health system historically has worked cooperatively between the state and local levels.

Public health officers have broad and far-reaching authority and responsibility under the law.[38] For example, public health officers have the authority to order testing of individuals and communities, to quarantine individuals and groups, and to close beaches, restaurants, and other facilities for public safety reasons. The state Department of Public Health (DPH) works with and monitors local public health jurisdictions, and county health departments must submit regular public health and program reports to DPH and to other state agencies such as the Emergency Medical Services Authority.

How different LHJs meet their legal requirements and conduct specific public health programs varies substantially in administrative structure, scope, funding levels, staffing, and specific services and programs offered. Yet despite the breadth, variety, and importance of their functions, no statewide resource regularly profiles county public health programs or funding.

Communicable Disease Control

Under California law, communicable disease control activities include prevention, epidemiological services, public health laboratory identification, surveillance, immunizations, follow-up care for sexually transmitted diseases, and tuberculosis control and support services. Local public health officers accept and evaluate mandated reports from health providers on more than 80 statutorily reported diseases.[39] Some counties offer tuberculosis and STD immunizations and treatment at county-operated health clinics and/or in partnership with community providers. Counties may also combine these services with public health nursing and offer treatment

through their primary care delivery systems. As one illustration of this important LHJ function, state and local public health departments tracked and monitored the 2014-15 measles outbreak.

Categorical Programs

Local public health departments administer an array of state and federal public health categorical programs, which are programs for specific populations or for particular, limited purposes. Categorical programs are generally funded by separate federal or state allocations or grants and have specific program requirements or guidelines associated with the funding. The programs offered and the scope of services can vary significantly between counties.

Among the largest of these categorical programs is Maternal, Child, and Adolescent Health (MCAH). Local MCAH programs provide services to at-risk pregnant women and new mothers, connecting them with services to improve their health outcomes and those of their children. County public health nurses make home visits to at-risk mothers and new babies to help new families get a healthy start. MCAH activities include assessment of maternal and child health indicators, community health education programs, and outreach with emphasis on Medi-Cal enrollees. Local MCAH programs may include, among others, Adolescent Family Life, Black Infant Health, Comprehensive Perinatal Services, Fetal and Infant Mortality Review, Childhood Injury and Prevention, and Perinatal Outreach and Education. A related program administered by local public health departments is WIC (Special Supplemental Nutrition Program for Women, Infants, and Children). LHJs are also local lead agencies in tobacco education and prevention programs.

Counties also have specific responsibilities related to reporting and tracking HIV infection as part of their responsibilities for communicable disease control. In addition, some counties receive state and federal funding for HIV/AIDS prevention, care, and treatment. Counties often subcontract with local providers and community-based agencies for these programs. The DPH Office of AIDS administers and allocates state and federal HIV/AIDS funds to LHJs (but may also contract directly with providers and agencies on the local level). Only LHJs deemed by DPH to be "highest burden" at any point in time receive funds for prevention, including counseling, testing, and targeted prevention for high-risk groups. Some

counties administer federal Ryan White Comprehensive AIDS Resources Emergency (CARE) funds for primary and medical care and support services for HIV-infected people. Counties may also help to enroll individuals in the AIDS Drug Assistance Program, which provides financial assistance for those who may not otherwise be able to afford the full costs of HIV/AIDS medications.

Emergency Preparedness

Local health departments have the lead local role in early detection of and response to emergency public health crises, disasters, or bioterrorism events. Local health departments are required to initiate expanded surveillance and to lead the local response to the public health effects of emergencies and disasters. Counties contract with the state for these responsibilities and manage federal funds for specific emergencies.

Environmental Health

County environmental health inspectors monitor, inspect, and control permits for restaurants and food establishments, multifamily housing, hazardous materials storage facilities, wells, septic tanks, and community swimming pools. Environmental health programs are generally fee-supported and receive oversight from various state agencies in areas such as solid waste, small public water systems, underground storage tanks, and hazardous materials.

Funding for County Public Health

Counties rely on a range of funding sources for public health services, including realignment funds, county general funds, and state and federal categorical program funding. During the decade prior to implementation of the ACA, California substantially reduced or eliminated state funds for many public health programs and services. For example, in 2009-10, California eliminated all state general funds for maternal and child health and local immunization programs. As a result, local public health departments increasingly rely on the combination of local revenues and categorical federal funds, including federal funds for Title V Maternal and Child Health, Ryan White CARE funds, and emergency preparedness grants and funding.

Federal and State Policies Affecting County Public Health

This section focuses on state and federal policies and programs affecting local public health departments.

State and Local Program Realignment

In the wake of Proposition 13 (California's landmark 1979 property tax reduction initiative) the Legislature enacted programs to make up for local revenue losses in many areas, including providing direct state funding for county health services, local public health services, and indigent care programs. Assembly Bill 8 in 1979 established funding distribution formulas and county maintenance of effort for county health programs.

As described earlier, the state's 1991 realignment transferred responsibility for specific health and social services, including public health, to counties, along with dedicated revenues for health, mental health, and social services. Counties generally must use each revenue fund for the defined category of services, with some limited transfer authority, and thus must fund both indigent care and public health mostly from the health revenue account. Since 1991 realignment, counties determine locally how much of that fund to allocate to indigent care and how much to public health — meaning that public health programs compete with indigent health care for health revenue funds, and with other realigned programs for revenue growth funds year-to-year. The local flexibility that counties gained from this realignment structure is reflected in widely varying public health programs and funding levels county-to-county, with no state-level tracking of county public health spending.

AB 85 of 2013 redirects to the state certain funds that counties historically spent for indigent medical care; this is in recognition of the shift of individuals, primarily single, low-income adults, from county indigent programs to Medi-Cal. The health redirection established formulas and a tracking process to identify the appropriate levels of funds for redirection, including attempting to separate historic county indigent care spending from historic county spending on public health services. The intent was to ensure that counties retain the relative level of funding historically allocated to public health services. Under the new realignment formulas, the state will also allocate a fixed 18.5% of any revenue growth to the health account. This means that county realignment funds available for public health going forward will be limited by historic funding levels for the programs in each county and by the fixed allocation of growth funds. (For more information on the redirection, see the DHCS AB 85 page at www.dhcs.ca.gov.)

ACA Impacts on County Public Health

The ACA emphasizes increased access to health coverage through public and private insurance expansion and program reforms. At the same time, the ACA highlights prevention and population health through a variety of policies, programs, and investments. For example, the ACA encourages providers and private insurers to adopt a population health approach through payment reforms and new models of care and financing such as medical homes and accountable care organizations. The ACA coverage expansions and the focus on prevention and population health combine to provide both opportunities and challenges for county public health programs.

The ACA requires coverage for specific clinical preventive services in Medicare and private insurance at no cost to patients and offers higher federal matching rates for states that enact prevention programs within their state Medicaid systems. This means that many people now have insurance coverage for screening and prevention programs traditionally offered by county public health departments, such as adult and childhood immunizations, screening for sexually transmitted diseases, and HIV testing. This expansion of insurance coverage for prevention may reduce the need for screenings typically offered by county public health departments and even for entire public health clinics, many of which had already seen significant funding reductions in the years prior to passage of the ACA. However, it may also allow the programs to refocus their limited resources on specific target groups and on those who remain uninsured.

The ACA established the federal Prevention and Public Health Fund (Prevention Fund) to promote health across all programs, and the National Prevention Council to develop a national strategy aimed at health in all policies. "Health in all policies" is a collaborative approach to improving population health by considering the health impacts of decisionmaking across sectors and policy areas. The Prevention Fund supports prevention and other public health activities, including community-based preventive health programs (e.g., tobacco cessation, obesity prevention, and chronic disease management programs). The federal Administration for Community Living, the Centers for Disease Control and Prevention

(CDC), and SAMHSA administer targeted programs under the Prevention Fund, including grants to state and local public health agencies. Since passage of the ACA, Congress has significantly reduced amounts in the fund.

California has received two Community Transformation Grants from the CDC to engage in capacity building related to health improvement and chronic disease management. Fresno, Kern, Los Angeles, San Diego, San Francisco, Stanislaus, and Ventura Counties have also received targeted CDC grants since program inception. A collaboration between the Public Health Institute and the California Department of Public Health received a five-year, $5.9 million CDC grant to provide local agencies in 42 low-density California counties (populations of 500,000 or less) with tools, training, and guidance to make their communities healthier. The program, known as CA4Health, focuses on four strategies: reducing consumption of sugary beverages, increasing availability of smoke-free housing, creating safe routes to schools, and providing people who have chronic disease with skills and resources to manage their illness. (For more information about CA4Health, see www.ca4health.org.)

ACA Home Visiting Program. Another example of an ACA initiative directly affecting many county public health departments in California is the nurse home-visiting program serving pregnant women and children up to age 5. Under the California Home Visiting Program, 22 sites in 21 LHJs receive federal funds to provide comprehensive, coordinated in-home services focused on supporting positive parenting and improving outcomes for families residing in identified at-risk communities. The number of programs is limited to 22 because the state did not receive enough funding to support programs in all counties. (For more information, see the DPH page about the California Home Visiting Program at www.cdph.ca.gov.)

Conclusion

California counties historically have been core providers and administrators of health, behavioral health, and public health services. Despite the passage of landmark federal health care reform, this review finds that the basic county roles and responsibilities for health and health care remain as they have for decades.

Nonetheless, the ACA, and state policy initiatives enacted to prepare for and implement its provisions, are reshaping

county services and programs. Core county health programs remain, but the services, delivery systems, and populations served are evolving. Many low-income residents previously eligible for county programs are eligible for and enrolled in comprehensive coverage under the ACA. The level and types of funding available to support county health programs, and county funding responsibilities for those programs, have shifted. Counties provide the nonfederal Medicaid match for key health programs, such as mental health and SUD programs, and in counties with public health care systems, for Medi-Cal health care services, even as the programs expand enrollment and benefits.

California's implementation of delivery system changes and coverage expansions, begun following passage of the ACA in 2010, is still very much a work in progress. Table 5 lists major pending actions and policies that will continue to affect county programs in the coming years.

Most observers agree it is too soon to know how the ACA will ultimately transform public and private health care markets and programs. Counties are providing and administering health programs in the context of unprecedented changes in health care delivery, which invites and necessitates new partnerships, innovations, and quality improvement imperatives. This report offers an updated overview of the programs that counties offer, and the varied approaches they use to deliver county health services, as background for policymakers and stakeholders monitoring the progress of health care reform.

Table 5. Pending Policies Affecting County Health Programs, by Date

	EVENT
March 27, 2015	California submitted federal 1115 waiver proposal, successor to the Bridge to Reform waiver, for CMS review.
October 31, 2015	Bridge to Reform waiver expires.
December 31, 2015	Existing "carve-out" of CCS from Medi-Cal managed care sunsets.
2016	The state and counties first reconcile estimates and costs for indigent care savings under health redirection formulas.
2018	Federal reductions in DSH payments scheduled to take effect.

Appendix A. County Medically Indigent Care Programs: Key Characteristics (as of July 1, 2015)

Provider counties (operating county hospitals and clinics)

COUNTY / PROGRAM NAME	ELIGIBILITY (FPL)	ELIGIBLE AGES	COVER UNDOCUMENTED	COPAYS/SHARE OF COST (SOC)	ELIGIBILITY PERIOD	DELIVERY SYSTEM
Alameda Health Program of Alameda County (HealthPAC)	<200%	19-64	Yes	SOC	12 months	County hospitals – Alameda Health System; contracts with network of 9 community clinics
Contra Costa Basic Health Care	<300%	19+	No	SOC varies by income and age	12 months	County hospital – Contra Costa Regional Medical Center and 12 affiliated clinics
Fresno Fresno County Medically Indigent Services Program (MISP)	≤138% FPL 138%-224% FPL	21-65	No Contracts with CMC for specialty care and local FQHC clinics	≤138% FPL: No SOC 138-224% FPL: SOC	1 month or 3 months, depending on individual circumstances	Contracts with private hospital, Community Medical Centers (CMC), and Central California Faculty Medical Group
Kern Kern Medical Center Health Plan	138%-200%	19-64	No	Copayments	12 months	County hospital – Kern Medical Center (KMC) and KMC clinics
Los Angeles My Health LA	≤138%	6+	Yes	≤138% FPL: No SOC >138% FPL: SOC	12 months	Community clinic partners under contract with the county; county hospitals
Ability-to-Pay Plan (ATP)	No FPL cap					5 county hospitals and affiliated county clinics; contracted nonprofit community clinics
Merced Merced County Medical Assistance Program (MAP)	<100%	21-64	No	No	30-180 days	Local providers and by referral to specialty providers outside the county if necessary
Monterey Monterey County Medical Services Program	<250%	21-64	No Pilot program in process for 2016	SOC	Month-to-month eligibility	County hospital and clinics – Natividad Medical Center; Specialty care may be authorized outside of county facilities
Orange Orange County Medical Safety Net Program (MSN)	138%-200%	19–64	No	Copayments	12 months	Partnership between the Orange County and the private medical community, including community clinics
Placer Medical Care Services Program (MCSP)	<185%	21-64	No	>138% FPL: SOC	3 months	Placer County Medical Clinic and contracts with local hospitals
Riverside Riverside County Medically Indigent Services Program (MISP)	<200%	21-64	Yes	Copayments and SOC	12 months	County hospital – Riverside County Regional Medical Center; Riverside County health centers; contracted community clinics

County Medically Indigent Care Programs: Key Characteristics, *continued*

COUNTY / PROGRAM NAME	ELIGIBILITY (FPL)	ELIGIBLE AGES	COVER UNDOCUMENTED	COPAYS/SHARE OF COST (SOC)	ELIGIBILITY PERIOD	DELIVERY SYSTEM
Sacramento *County Medically Indigent Services Program (CMISP)*	No FPL cap	21-64	No New separate limited benefit program	SOC (begins at 63% FPL)	12 months	County clinics for primary care, pharmacy, and labs; contracted specialty, emergency and hospital providers (Dignity Health and Sutter Health)
San Bernardino *San Bernardino County Medical Services Plan (CMSP)*	≤100%	19-64	No	No	12 months	County hospital and clinics — ArrowHead Regional Medical Center
San Diego *San Diego County Medical Services (CMS)*	<165% Hardship program for incomes up to 350%	21-64	No	>165% FPL: SOC	6 months	Network of community health centers; private physicians and hospitals
San Francisco *Healthy San Francisco*	≤400%	18-64	Yes	>100% FPL: Participation fee and copayments	12 months	County hospital and clinics; San Francisco Community Clinic Consortium clinics; private community providers
San Joaquin *San Joaquin Medical Assistance Program (MAP)*	<300%	19-64	No	Yes	6-12 months	County hospital and clinics – San Joaquin General Hospital
San Luis Obispo *San Luis Obispo Medically Indigent Services Program (SLO-MISP)*	139%-250%	19-64	No	SOC	3 or 6 months	Community Health Centers of the Central Coast (CHC) clinics; Limited local specialists; All local hospitals accept SLO MISP patients
San Mateo *San Mateo Access and Care for Everyone (ACE)*	<225%	19+	Yes	Enrollment fee: $360/year	12 months	County hospitals and clinics – San Mateo Medical Center
Santa Barbara *Indigent Care Program (ICP)*	138%-200%	21–64	No Eligible for sliding scale services at county health centers; tobacco settlement funds cover services outside of health centers for low income uninsured including undocumented	SOC	3 months with option to reapply	Santa Barbara County Public Health Department (PHD) Health Care Centers Services outside of PHD county health care centers must be pre-authorized. Many local providers accept ICP including all hospitals in the county.
Santa Clara *Ability-to-Pay Program*	138%-250%	19-64	Yes, if resident of county for 5 years	Copayments	12 months	County hospital – Santa Clara Valley Medical Center and its affiliated clinics

County Medically Indigent Care Programs: Key Characteristics, *continued*

COUNTY / PROGRAM NAME	ELIGIBILITY (FPL)	ELIGIBLE AGES	COVER UNDOCUMENTED	COPAYS/SHARE OF COST (SOC)	ELIGIBILITY PERIOD	DELIVERY SYSTEM
Santa Cruz *MediCruz Program*	<100%	21–64	Yes	Copayments and SOC	2-3 months	County clinics for primary care; other nonemergency services outside of county clinics require pre-authorization
Stanislaus *Medically Indigent Adult Program (MIA)*	Varies in increments by age: <144% (21-29) to <175% (60-64)	21–65	No	SOC	3–12 months	County-based physicians and family practice residents at county clinics; Doctor's Medical Center of Modesto
Tulare *Sliding fee scale discount at county clinics*	<175%	21–64	Yes	Copayments and sliding scale SOC	12 months	County-operated clinics
Ventura *Self-pay discount program*	<700% Eligible county residents <100% FPL may be eligible for a charity care adjustment	19–64	No	SOC (discounted payment for services at VCMC)	12 months	Ventura County Medical Center (VCMC) facilities and clinics
CMSP Counties (35) *County Medical Services Program (joint program)*	139%-300%	21–64	Yes	SOC	3 months	Contracts with local providers organized by contracted administrator

Notes: FPL is the federal poverty level. Information on this chart was obtained directly from counties and through online research but subject to change as counties update and revise programs and services. Eligibility for most county indigent care programs requires applicants to have no other source of health coverage and to apply for Medi-Cal / Covered California before seeking assistance through the county. Some county programs retain eligibility at very low income levels, although most individuals with incomes 0%-138% FPL are eligible for Medi-Cal, except for undocumented people who are only eligible for emergency Medi-Cal. Share of cost for the programs typically varies based on income. Counties with hospitals may have discount and charity care programs for low-income uninsured individuals, including undocumented people, in addition to the specific indigent care programs profiled here. AB 774, Chapter 755, Statutes of 2006 requires all hospitals in the state, not only county hospitals, to administer a discount payment and charity care policy for financially qualified patients. Fresno, Monterey, Santa Barbara, and Sacramento Counties have or are developing limited programs for undocumented people, but those counties report they have not revised the eligibility rules to make undocumented individuals eligible for the core county indigent care programs.

Endnotes

1. For more details about the evolution and characteristics of pre-ACA county indigent care programs, see Deborah Kelch, *The Crucial Role of Counties in the Health of Californians: An Overview*, California HealthCare Foundation, March 2011, www.chcf.org.

2. Trisha McMahon and Matthew Newman, *County Programs for the Medically Indigent in California*, California HealthCare Foundation, October 2009, www.chcf.org.

3. Ibid.

4. Governor's May Revision of the 2015-16 Budget, www.ebudget.ca.gov (PDF).

5. Executive Director's Report to the Board, Covered California, May 21, 2015, board.coveredca.com (PDF).

6. The California Legislature passed special legislation (AB 2731, Chapter 743, Statutes of 2014) permitting Fresno County to delay until 2020 its maintenance of effort payments to the local Road Fund, as long as the county continues to provide medical services to indigent and undocumented people consistent with eligibility and benefits in effect in the 2013-14 fiscal year. The county is using $5.5 million from the Road Fund to pay for the indigent care services.

7. The federal Emergency Medical Treatment and Active Labor Act (EMTALA) and implementing state laws require anyone coming to an emergency department to be stabilized and treated, regardless of their insurance status or ability to pay. Under EMTALA, "any patient arriving at an Emergency Department (ED) in a hospital that participates in the Medicare program must be given an initial screening, and if found to be in need of emergency treatment (or in active labor), must be treated until the patient is stable. EMTALA is also referred to as the "anti-patient dumping" requirement.

8. AB 774, Ch. 755, Statutes of 2006. Hospital Fair Pricing Policies, HSC Sections 127400-127446.

9. In November 1998, California voters passed Proposition 10, the "Children and Families Act of 1998" initiative. The act levies a tax on cigarettes and other tobacco products to provide funding for early childhood development programs. Revenues generated from the tobacco tax must be used to enhance the early growth experiences of children, enabling them to be more successful in school and ultimately to give them an equal opportunity to succeed in life.

10. "Mission, Vision, and History," California Coverage and Health Initiatives, cchi4families.org.

11. AB 85, Chapter 24, Statutes of 2013.

12. *Medi-Cal Managed Care Enrollment Report*, Department of Health Care Services, December 2014.

13. Dependent CCS counties are Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Glenn, Imperial, Inyo, Kings, Lake, Lassen, Madera, Mariposa, Modoc, Mono, Nevada, Plumas, San Benito, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, and Yuba.

14. *CalSIM version 1.91 Statewide Data Book, 2015-2019* (Table 1), UCLA Center for Health Policy Research and UC Berkeley Labor Center, May 2014, healthpolicy.ucla.edu (PDF).

15. SB 75, Chapter 18, Statutes of 2015.

16. SB 1 X1, Chapter 4, Statutes of 2013-14 of the First Extraordinary Session.

17. CalSIM is a micro-simulation model jointly developed by the UCLA Center for Health Policy Research and the UC Berkeley Center for Labor Research and Education. CalSIM estimates the impact of various features of the ACA using a wide range of official data sources, including the California Health Interview Survey, healthpolicy.ucla.edu.

18. Orange, Sacramento, and San Diego Counties contract for indigent care services with UC hospitals, which have access to similar but not identical funding sources as county-operated facilities. Together, county and UC hospitals are considered "designated public hospitals" for purposes of federal indigent care funding, the federal Medicaid 1115 waiver, and the state's hospital provider fee.

19. Department of Health Care Services, email message to author, "Percent Default Population Assigned to the County Public Hospitals and Health Systems, January-June 2014 and July-December 2014."

20. *November 2014 Medi-Cal Local Assistance Estimate*, Department of Health Care Services, www.dhcs.ca.gov.

21. AB 1383, Chapter 627, Statutes of 2009.

22. *Analysis of Senate Bill 239, Chapter 657, Statutes of 2013*, Senate Committee on Health, September 12, 2013.

23. *A Complex Case: Public Mental Health Delivery and Financing in California*, California HealthCare Foundation, July 2013, www.chcf.org.

24. Specialty mental health services administered by county MHPs are subject to medical necessity criteria depending on whether the determination is for inpatient, outpatient, or outpatient services for beneficiaries under 21. Regulations governing medical necessity can be found at Title 9, California Code of Regulations, Section 1820.205 (inpatient), 1830.205 (outpatient) and 1830.210 (outpatient for beneficiaries under 21). Beneficiaries must have one or more mental health diagnoses outlined in the regulations, have one or more impairments as a result of the diagnoses (e.g., a significant impairment in life functioning), and the proposed intervention must be focused on the impairment from the diagnosis with the expectation that the intervention will diminish the impairment or, in the case of a child under 21, allow them to progress developmentally.

25. CHCF, *A Complex Case.*

26. "Subcommittee #3, Part A Health and Mental Health Oversight, CHFFA, DHCS" (budget hearing agenda), Senate Budget and Fiscal Review Committee, April 9, 2015, sbud.senate.ca.gov.

27. CHCF, *A Complex Case.*

28. For information on EPSDT services in Medi-Cal managed care, see "All Plan Letter 14-017," Department of Health Care Services, December 12, 2014, www.dhcs.ca.gov (PDF).

29. For information on BHT services in Medi-Cal managed care, see "All Plan Letter 14-011," Department of Health Care Services, September 15, 2014, www.dhcs.ca.gov (PDF).

30. California WIC Section 5000 et seq.

31. SB 82, Chapter 34, Statutes of 2013.

32. See WIC Division 9, Part 3, Chapter 7, Sections 14124.20-14124.29.

33. SB 1 X1, Chapter 4, Statutes of 2013-14 of the First Extraordinary Session.

34. Senate Budget and Fiscal Review Committee, "Subcommittee #3."

35. *Drug Medi-Cal Limited Scope Review,* California Department of Health Care Services, November 2013, www.dhcs.ca.gov (PDF).

36. Senate Budget and Fiscal Review Committee, "Subcommittee #3."

37. See California HSC, Division 101, Part 3, Section 101000 et seq.

38. Ibid.

39. California HSC, Division 105, Part 1, Section 120100 et seq.

Qualified Health Plan Review in Marketplaces With State Plan Management: An Analysis of the Division of Labor Between State Exchanges and Other State Agencies

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Introduction

States have implemented a variety of different methods to handle the review and certification of qualified health plans (QHPs). The processes developed divide review and certification functions between the marketplaces and state agencies. Except in cases where the federal marketplace handles both QHP review and certification completely, the marketplaces perform few plan management functions. Prior to delving into the division of labor between the marketplace and other agencies, we conducted preliminary research to familiarize ourselves with the process of QHP certification.[1] In doing so, we found that states break this process down into various plan management functions.

In order to determine the role of the marketplace in plan management, we identified and collected eight components of plan management functions for 31 marketplaces. We excluded federally-facilitated marketplaces (FFMs) without state plan management functions and focused on state-based marketplaces (SBMs), state partnership marketplaces (SPMs), supported state-based marketplaces (SSBMs), and FFMs with state plan management. Hawaii was excluded from our analysis because it is in the process of transitioning from an SBM to an SSBM. Accordingly, our total number of observations is 30 rather than 31.

The functions included in the survey are reviews of: issuer solvency, network adequacy, essential community provider inclusion, geographic service areas, benefits, prescription drug formularies, non-discriminatory marketing practices, and rates. Where the marketplace itself was not responsible for reviewing these variables, our team of researchers attempted to identify the agencies responsible for the review of each of the plan management functions for the most recent plan year available. These data are based on instructions published on the websites of marketplaces, Departments of Insurance (DOIs), and other state agencies. Ideally, these instructions concerned the plan year 2016 certification process. In cases where such instructions were not available, we relied on instructions from previous years, relevant portions of a state's insurance code, and state statutes.

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[1] We later added these three questions to the end of the resulting dataset—questions numbered 9 through 11.

Robert Wood Johnson Foundation

For the instances in which the marketplace did not perform plan management functions, our team captured the names of the particular state agencies that perform plan management functions. We organized these data into a separate variable. In most states, the DOI conducts plan management functions. We found that DOIs encompass insurance divisions within larger state agencies and agencies that regulate multiple industries, including the insurance industry. In some states, the Department of Health (DOH) performs plan management functions. There are several cases in which agencies collaborate, or agencies other than the DOI or DOH conduct plan management functions.

Definitions

Solvency refers to the ability of insurers to fulfill their financial obligations. To be certified as a QHP under the Affordable Care Act (ACA), insurers must be certified that they are in good standing, which includes compliance with state solvency requirements.

Network adequacy review is the review of proposed plan networks to ensure that they comply with federal and state standards concerning patient access to care and access to information about the network.

States review *essential community providers (ECPs)* to ensure that plan networks include a sufficient number and geographic distribution of providers offering services for "low-income, medically underserved individuals in the QHP's service area, in accordance with the Exchange's network adequacy standards" (45 C.F.R. § 156.235). While many states rely on the ECP definition and standards set forth by the Centers for Medicare & Medicaid Services (CMS) in its annual Letter to Issuers, others developed their own definition and standards for ECPs.

Regulators review the *geographic service areas* proposed by potential QHP issuers to ensure that the suggested service area covers the minimum geographical area defined by the marketplace, and that the service area is not designed to discriminate against any population.

Benefit review ensures that potential QHPs cover the federal essential health benefits (EHBs) and any state health insurance mandates. Benefit review is also known as EHB review, mandated benefits review, mandates evaluation, or benefit design.

Formulary review ensures that formularies are abiding by the following excerpt from federal regulations: QHPs "must cover at least the greater of one drug in every U.S. Pharmacopeial Convention (USP) category and class or the same number of drugs in each category and class as the base benchmark plan" (45 C.F.R. 156.122). To attest to compliance, issuers must report this information and other usage data as defined in Federal Standards 45 CFR 156.120 & 45 CFR §156.295 to regulators.

As part of the QHP certification process, regulators may review an issuer's compliance with all federal and state *non-discriminatory marketing standards*. In addition to being non-discriminatory, marketing practices must not discourage "the enrollment of individuals with significant health needs" (45 C.F.R. § 156.225).

Rate review is the process by which regulators review any proposed rate increase to ensure that the rate increases are not unreasonable. Under the ACA, federal and state regulators pay particular attention to individual or small group market insurers that propose rate increases greater than or equal to 10 percent.

Methodology

If the marketplace conducted the above plan management functions or there was collaboration between the marketplace and another state agency, then "Yes" was entered as the answer. If the marketplace did not conduct the specific plan management function, then "No" was entered. The answer choice "Other" was used in cases where neither "Yes" nor "No" fit. "Other" was also used in cases where it was unclear which agency conducted a review, or whether any review was conducted at all. Descriptions of these situations were entered in the notes section. "No Information Found" was used when an extensive search found no relevant information. A description of locations searched was included in the notes.

For the purposes of this analysis, DOI refers to any agency whose primary responsibilities include insurance regulation. "DOI" was selected for agencies that regulate all types of insurance, including health insurance policies. The agency may be a Division of Insurance within an overarching regulatory agency (e.g., South Dakota's Division of Insurance within its Department of Labor Relations). We also used this answer choice when the agency regulates multiple industries, including insurance (e.g., Montana's Commissioner of Securities and Insurance regulates both the securities and insurance industries). The agency, therefore, may have a name other than Department of Insurance. "DOI" was also selected when the agency regulated health insurance policies in collaboration with a separate agency, with the exception of collaborations with the marketplace or the Department of Health (e.g., DOI was selected for California where both its DOI and Department of Managed Health Care regulated health insurance policies). "DOI" was not selected for stand-alone agencies that regulated health insurance, but

operated entirely separately from an existing DOI (e.g., Rhode Island's Office of the Health Insurance Commissioner handles health insurance matters, but its Department of Business Regulation regulates all other types of insurance and could typically be considered a DOI in its own right). In that case, we labeled the agency as "Other."

"CMS/HHS" was selected if the Centers for Medicare & Medicaid Services/Department of Health and Human Services (HHS) conducted review functions.

"Marketplace" was selected if the entity was identified as the sole performer of a review function. This answer choice also included instances where the marketplace collaborated with the DOI to perform a review function.

"DOH" was selected if the entity performing the review regulated public health matters and was involved in health insurance regulation. This answer choice also included instances where the DOH collaborated with the DOI.

"Other" was selected when the entity that regulated health insurance policies was not the DOI, the DOH, the marketplace, or any other agency not encompassed by these answer choices. For example, Vermont's Green Mountain Care Board is not a DOI, DOH, or marketplace, but conducts benefit review for health insurance policies.

"No Information Found" was selected when it was unclear which agency conducted review. This answer choice was also selected when the information found was unclear as to whether a review was conducted, or when there was no information available about the particular plan management function in question.

Findings

State-Based Marketplaces — Within the fourteen SBMs, the DOIs and the marketplaces play the largest role in plan management. All SBMs except Colorado certify QHPs. The DOIs conduct the majority of reviews. For example, in Colorado and the District of Columbia, the DOIs conducted all plan management activities.

In some instances, the DOIs partner with other agencies. In Idaho and Massachusetts, the DOIs collaborated with their state marketplaces, while in California, New York, Minnesota, and Vermont, the DOIs partnered with other agencies to conduct reviews.

In other instances, the state marketplace conducted one or more of the eight reviews. This happened in California, Connecticut, Kentucky, Maryland, Massachusetts, and Washington state.

Out of all the marketplace models, the SBMs conduct the most plan management functions. Moreover, the SBMs conduct the highest number of reviews for ECP inclusion (4 of the 13 states). The SBMs did not conduct solvency review or prescription drug formulary review.

Overall, SBMs conduct six of the eight plan management functions we studied: network adequacy, essential community providers, geographic service area, benefits, non-discriminatory marketing, and rate review.

State-Based Marketplaces
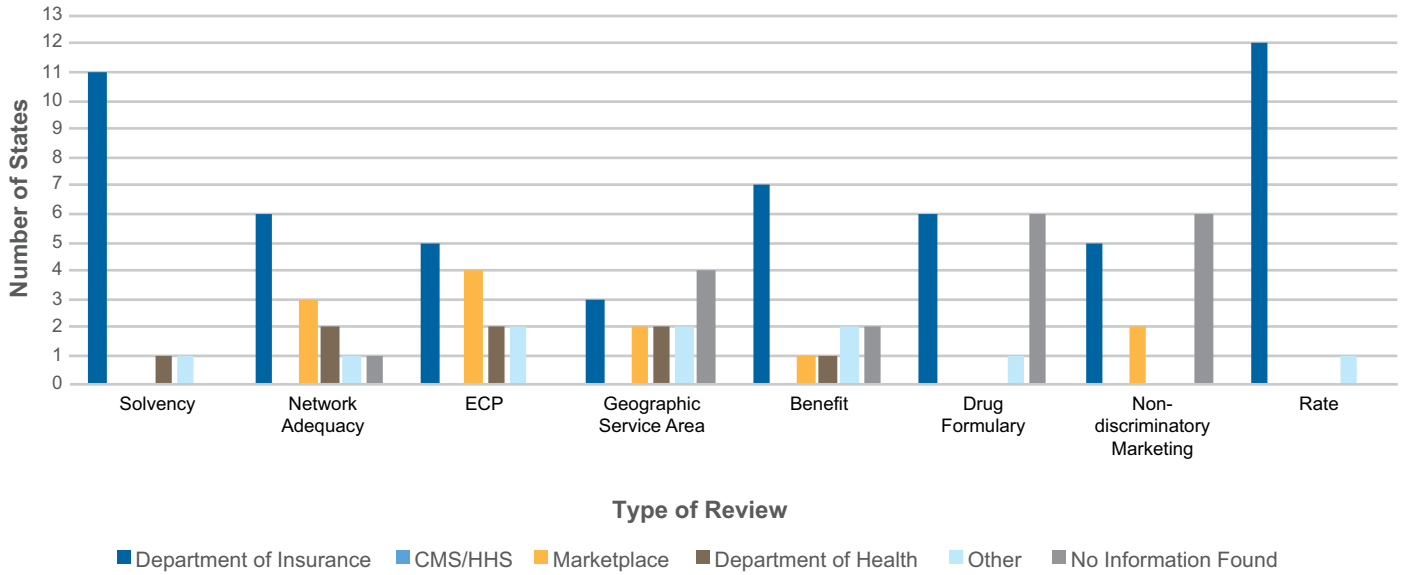
Supported State-Based Marketplaces — There are three states that have an SSBM. **We found no pattern in how SSBMs divide plan management responsibilities.** Only Nevada's marketplace participates in any of the reviews. Nevada's marketplace collaborates with the DOI to conduct non-discriminatory marketing review. New Mexico's DOI is responsible for all eight of the plan management functions we studied. Up-to-date information is difficult to find for Oregon following its transition from an SBM to an SSBM. There is no indication of network adequacy, ECP, drug formulary, and non-discriminatory reviews. The DOI certifies plans in Oregon, Nevada's marketplace certifies QHPs, and New Mexico's DOI passes its determinations to CMS.

Supported State-Based Marketplaces
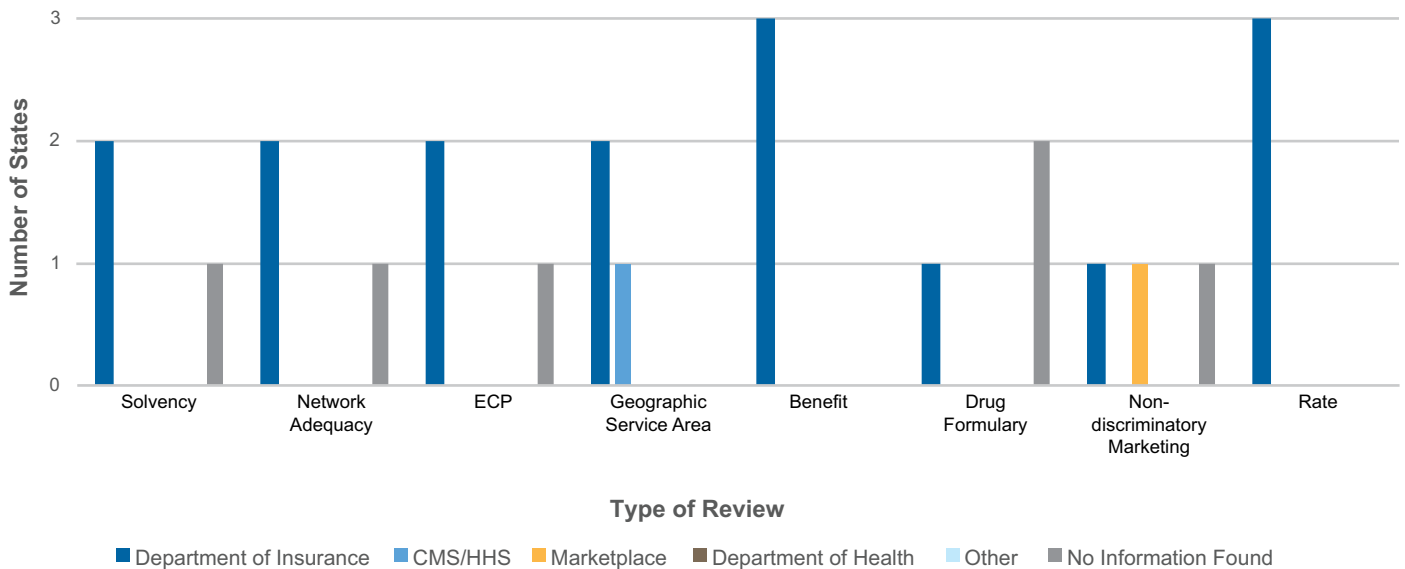
State Partnership Marketplaces — There are seven states that operate as SPMs. In all seven SPMs, CMS certifies QHPs, and the DOIs are responsible for a majority of plan management functions. Delaware and West Virginia delegate all eight of their reviews solely to their state DOIs. In only one SPM state does the DOI collaborate with another agency: In Illinois, the DOI works with the Illinois Department of Public Health to review network adequacy. In two SPM states—Arkansas and Michigan—CMS conducts the drug formulary review and the essential community provider review, respectively.

Federally-Facilitated Marketplaces with State Plan Management — There are seven states in which the federal government controls the marketplace while plan management functions are left to the state's discretion. In the majority of these states, the DOI handles the bulk of the QHP review process, but CMS certifies QHPs in all FFMs (even those without state plan management). CMS also conducts essential community provider review for Kansas and Maine. Kansas, Maine, and Virginia's DOIs collaborate with other agencies to conduct reviews.

For several FFMs with state plan management, we were often unable to find any data to shed light on how a plan management function is handled within the state. We found the highest concentration of answers with no specific information or identifiable agency in FFMs. **This is likely because in all FFMs, CMS certifies QHPs.** Because FFMs did not have to assume responsibility for operating marketplaces, these states had no need to restructure their health insurance regulatory processes. **Thus, they likely permitted their DOIs to continue their health insurance regulatory functions for QHPs.** Moreover, FFMs may rely on instructions, guidance, and standards issued by CMS in its annual Letter to Issuers. This may account for the lack of detailed instructions issued by these states.

Division of Labor
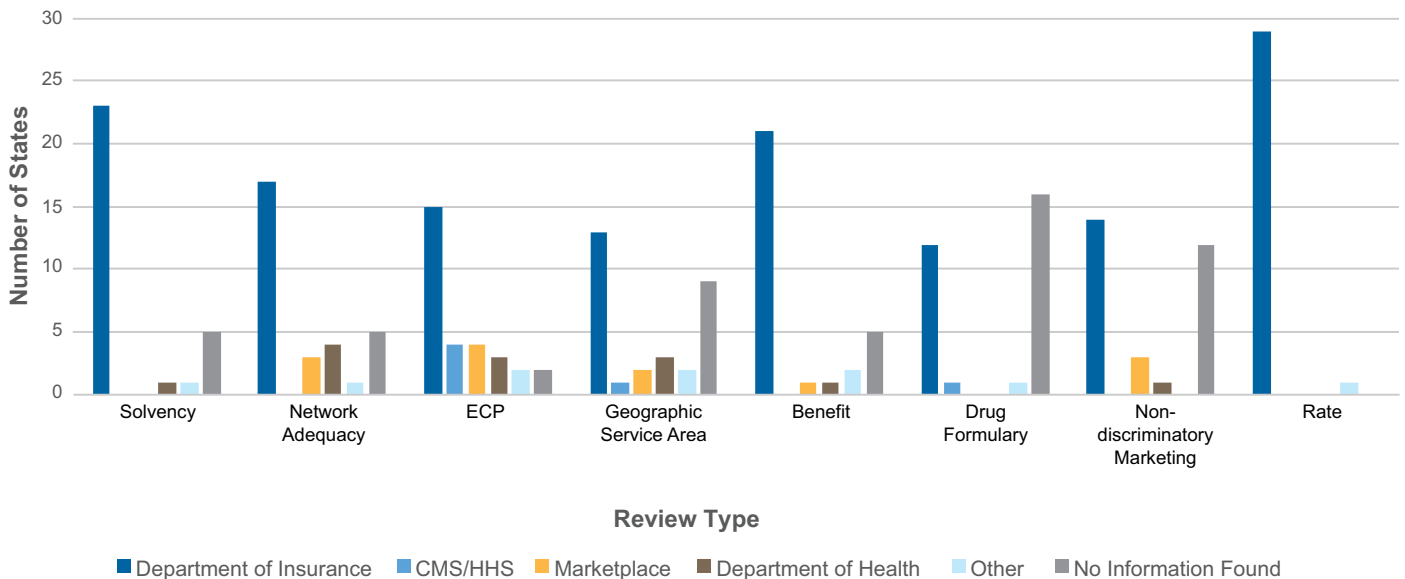
OTHER FINDINGS NOT RELATED TO EXCHANGE TYPE

1. **Functions of the Marketplace**

   ■ **The marketplace does not seem to take an active role in plan management and the various aspects of QHP review overall.** The marketplace performs reviews of ECPs in collaboration or on its own in four states, network adequacy and non-discriminatory marketing in three states, geographic service area in two states, and health benefits in one state. The marketplace has no active role in reviewing solvency, drug formularies, and rates. In states where the marketplace is not solely responsible for any review, the marketplace may take part in plan management functions. In these cases, the marketplace may collaborate with the state insurance department or similar state entity to prepare filing instructions. For example, Colorado's DOI and marketplace—Connect for Health Colorado (C4HCO)—jointly prepare filing instructions for issuers; the DOI and C4HCO then identify and correct errors, and finally the DOI reviews and approves plans.

   ■ **The marketplaces of Washington state and Connecticut review QHPs for discriminatory marketing practices.** However, Washington, D.C. and Idaho do not seem to have a proactive review. In the District of Columbia, complaints concerning marketing are reported to the DOI, and in Idaho, the marketplace and DOI jointly monitor complaints. Neither Washington, D.C. nor Idaho seem to have a pre-certification review process of proposed marketing materials. Furthermore, the only plan management function performed by Washington state's marketplace is the non-discriminatory marketing review. This is somewhat of an outlier because Washington state's insurance department conducts the seven other plan management functions in this data set.

   ■ **Idaho stands out as the only state that has established its own state-based marketplace following the first open enrollment period.** Idaho's marketplace has a role in the greatest number of plan management functions. It is solely responsible for geographic service area review and collaborates with the DOI for network adequacy, health benefits, non-discriminatory marketing practices, and rate reviews.
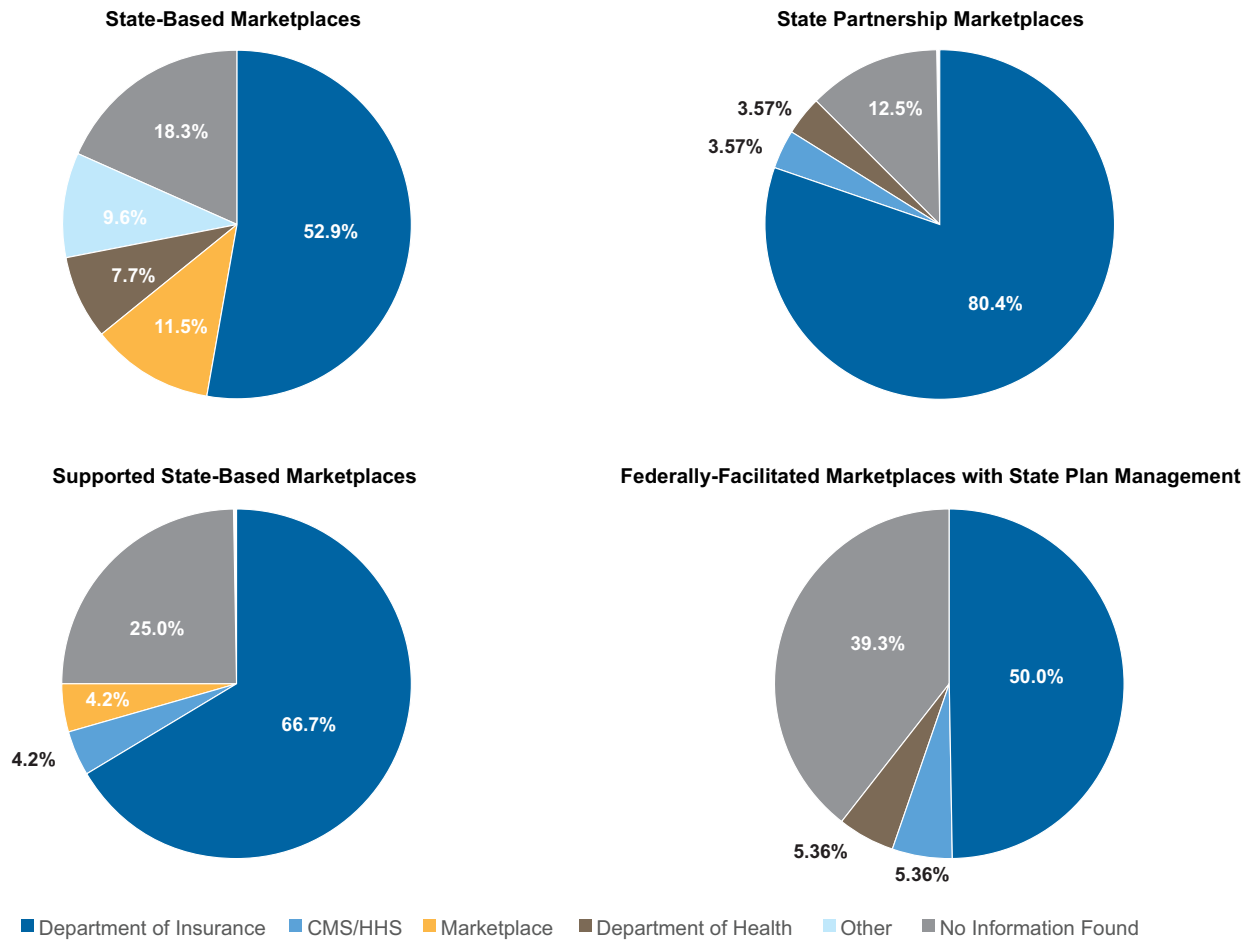
2. Collaboration Among State Agencies

- New York state, Vermont, California, Minnesota, Virginia, and Illinois are the only states where multiple state agencies other than the marketplace (with the exception of California on one variable) collaboratively perform the eight plan management functions studied in this data set. Of these six states, Virginia and Illinois are the only two non-SBMs.

- In New York state, the Department of Financial Services and the Department of Health conduct plan management functions. In some instances, both agencies perform a single function collaboratively, such as geographic service area review. In other instances, each agency will conduct a particular plan management function on its own.

- Vermont has three agencies involved with plan management: the Department of Financial Regulation, the Department of Vermont Health Access, and the Green Mountain Care Board. Like New York state, some agencies collaboratively perform plan management functions, while a single agency performs other functions.

- California has two state agencies that are responsible for plan management functions in addition to its marketplace: the California Department of Managed Care and the DOI. California differs from New York state and Vermont in terms of allocating plan management functions among its state agencies. In California, the marketplace itself conducts ECP review. Both the California Department of Managed Health Care and the DOI conduct other plan management functions collaboratively.

- In Minnesota, the Department of Commerce and the Department of Health conduct plan management functions. Each agency handles different functions except for benefit review, which both agencies perform collaboratively.

- Virginia, an FFM, has two agencies that conduct plan management functions: the Bureau of Insurance and the Virginia Department of Health. These agencies conduct ECP review collaboratively. Either the Bureau of Insurance or the Department of Health handles the other plan management functions alone.

- Finally, Illinois, an SPM, has both its DOI and Department of Public Health involved in plan management. The two departments collaboratively perform only network adequacy and non-discriminatory marketing review. The Illinois DOI conducts the remaining plan management functions studied in this data set.

3. Analysis by Type of Agency

- **DOI** — Departments of Insurance perform the majority of reviews, likely because such agencies were already responsible for the same or related functions prior to the enactment of the ACA. The DOIs are responsible for conducting rate review in 29 of the states we observed. Rhode Island is the only state that conducts review through an agency that only regulates health insurance—its Office of the Health Insurance Commissioner. In West Virginia, New Mexico, Washington, D.C., Delaware, and Colorado, the DOI performs all eight QHP plan management review functions. Of the five, only Colorado and the District of Columbia have SBMs. None, however, have FFMs.

- **DOH** — There are instances of the DOH taking part in all plan management functions except formulary and rate review. Of these, there are seven instances when the DOH acts alone in a review and five when the DOH collaborates in a review with another agency. In Minnesota, the DOH is involved in four QHP review functions. Minnesota's DOH solely reviews network adequacy, essential community providers, and geographic service areas, while the DOH collaborates with the Department of Commerce for benefit review. New York, Illinois, and Virginia also utilize collaborations between their DOH and other agencies to perform reviews.

- **CMS** — CMS conducts reviews for ECP standards in three FFM states and Michigan, an SPM. Furthermore, CMS only takes part in formulary review in Arkansas. CMS does not oversee any other plan management functions for the states under discussion.

- ECP review is the most diversified function across states with regard to what entity conducts reviews. DOIs conduct reviews in 15 states, while CMS conducts four reviews, state marketplaces conduct four reviews, state Departments of Health conduct three, and two states (Rhode Island and Vermont) have other state agencies conduct reviews.

Review by Agency Type

State-Based Marketplaces

State Partnership Marketplaces

Supported State-Based Marketplaces

Federally-Facilitated Marketplaces with State Plan Management

■ Department of Insurance ■ CMS/HHS ■ Marketplace ■ Department of Health ■ Other ■ No Information Found

Concluding thoughts

There are fifteen states that have stand-alone Departments of Insurance that regulate insurance policies. Eight states have a Division of Insurance within a larger agency that regulates policies. Only five states have a department that both regulates health insurance policies and oversees other industries.

State marketplaces rarely conduct reviews on their own. Instead, they rely on their DOIs or similar regulatory agencies to oversee plan management functions. One possibility for this choice is that it avoids redundancy; these agencies were already equipped for plan management responsibilities long before the ACA took effect.

Among FFMs and SPMs, there are no marketplaces that conduct reviews; they rely on other state agencies. We did attempt to capture which agency within the state conducts reviews and found that the DOI conducts nearly all aspects of QHP plan management. **However, only in two SSBM states—Oregon and New Mexico—does the DOI certify QHPs.** Furthermore, it seems that while the prescription drug formulary information is *collected* by a number of states, we were unable to find if an agency is *reviewing* this data in every state where it is collected.

Limitations

We did not include FFMs without plan management functions; these functions are all handled by CMS/HHS. CMS reviews and certifies QHPs for these states.

As mentioned above, Hawaii was excluded from our analysis because it is in the process of transitioning from an SBM to an SSBM. As of July 2015, the state is in the process of shutting down its marketplace and has not specified which entities will be responsible for QHP review and certification.

In some states, we could not find any relevant information; we marked these data points as "No Information Found." For example, after searching Kentucky's websites for both its DOI and marketplace, we did not find adequate information regarding the entities responsible for any review of plan management functions. In certain cases, we could not find which state entity conducted the review, although we knew that a review was taking place. In others, it was impossible to tell whether a review took place at all, as was the case for most states' prescription drug formulary review.

Accompanying data

Data collected for this brief can be accessed publicly on the Robert Wood Johnson Foundation's website at the following link: *http://www.rwjf.org/en/library/research/2015/09/division-of-labor-dataset.html*.

Acknowledgements

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THE HAMILTON PROJECT

Six Economic Facts about Health Care and Health Insurance Markets after the Affordable Care Act

David Boddy, Jane Dokko, Greg Nantz, and Diane Whitmore Schanzenbach

MISSION STATEMENT

The Hamilton Project seeks to advance America's promise of opportunity, prosperity, and growth. The Project's economic strategy reflects a judgment that long-term prosperity is best achieved by fostering economic growth and broad participation in that growth, by enhancing individual economic security, and by embracing a role for effective government in making needed public investments. We believe that today's increasingly competitive global economy requires public policy ideas commensurate with the challenges of the 21st century. Our strategy calls for combining increased public investments in key growth-enhancing areas, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

The Project is named after Alexander Hamilton, the nation's first treasury secretary, who laid the foundation for the modern American economy. Consistent with the guiding principles of the Project, Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that "prudent aids and encouragements on the part of government" are necessary to enhance and guide market forces.

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Introduction

Through reforms to cost-containment and expanded access to health insurance plans, the Patient Protection and Affordable Care Act of 2010 (ACA) has begun to shape the delivery and cost of health-care services to Americans. Many of these reforms are still taking hold, and it is too soon to completely know how they are affecting the health-care system. But looking beyond these considerations, it appears that many enduring economic challenges persist in the markets that provide health care and health insurance to consumers.

Indeed, many of these ongoing challenges center on three areas:

1. **Accessing care.** Recent estimates show that in 2014, the first year of the ACA's open enrollment, the number of Americans lacking health insurance dropped to 33 million, or to 10.4 percent of the population (Smith and Medalia 2015). This latest read of the uninsured rate is the lowest it has been in the years for which there are data (Centers for Disease Control and Prevention 2009; Smith and Medalia 2015). The ACA's mandate and corresponding subsidies for individuals to purchase health insurance on the federal or state exchanges explain some of the decline, but other economic forces, such as an improving labor market, may also be a factor. Nevertheless, with an estimated 35 million Americans still uninsured and many more underinsured, important gaps in the health-care safety net remain. Notably, individuals, particularly those with limited resources, do not necessarily have the ability to avoid severe financial burdens when they become sick, suggesting that the health-care safety net could be further strengthened.

2. **Delivering high-quality care without waste.** Experts agree that addressing important inefficiencies in the health-care sector would help reduce spending, improve the quality of care, or both. These concerns motivated the payment reforms of the ACA, which reinforced ongoing trends favoring value-based payments, whereby providers are compensated based on the outcomes for patients rather than on the number of services, patient visits, or treatments they provide. But beyond these payment reforms, another important source of inefficiency occurs when Americans pay too much for insurance coverage

they do not value, or pay too little and receive inadequate coverage that leaves them at risk of facing large health expenditures. With more Americans being offered a choice of which health plan to select through their employer, Medicare Advantage, or the federal and state exchanges, aligning consumers with the plan that best fits their preferences and needs presents an opportunity to lower costs for consumers and the public sector without sacrificing the quality of care.

3. **Managing new technology.** In many cases advances in medical technology have provided health benefits that far exceed their costs (Cutler and McClellan 2001; Cutler, Rosen, and Vijan 2006). But experts also believe that the U.S. health-care system often pays for new and more-expensive therapies that might not be any more effective than existing ones (Chandra and Skinner 2012). Moreover, excessive spending on ineffective technology can divert resources away from other health-improving investments, such as education or preventive care. Achieving the best pace and composition of innovation for the health-care system will require balancing considerations of health benefits, direct costs, and opportunity costs.

In the years to come, confronting these enduring challenges will be critical to helping Americans achieve long-term prosperity. A fundamental tenet of The Hamilton Project's economic strategy is that long-term prosperity is best achieved by policies that foster sustainable economic growth and that enhance individual economic security. Improving access to health care, reducing waste in the delivery of high-quality care, and effectively directing technological innovation toward productive medical treatments would work toward achieving these goals.

In this spirit, The Hamilton Project offers six economic facts that highlight continuing challenges and complexities in health care and health insurance markets on which the policy debate should focus. Chapter 1 reviews health-care spending in the United States, focusing on the differences in spending across regions and recent trends in spending. Chapter 2 describes consumers' health-care spending and highlights their financial vulnerability when selecting an insurance plan. Chapter 3 examines the choices consumers make with employer-sponsored insurance plans—an important source of access to health insurance in the United States.

CHAPTER 1:
Health-Care Spending in the United States

Health-care spending varies widely across the country and has grown steadily over the past five decades. Americans now spend nearly one in five dollars on health care. However, the pace of growth in health-care spending has been falling, on balance, since the 1980s due to changes in insurance plans, provider payment methods, and public sector programs.

1. **Spending on health-care resources varies widely across the country: spending for the average Medicare enrollee in Miami is nearly 70 percent greater than in Minneapolis.**

2. **In the United States, health-care spending has nearly doubled as a share of GDP since the 1980s, but not due to consumers' out-of-pocket expenses.**

1. Spending on health-care resources varies widely across the country: spending for the average Medicare enrollee in Miami is nearly 70 percent greater than in Minneapolis.

Spending on health care varies dramatically across the United States. For example, figure 1 shows Medicare spending for the average enrollee in the program after adjusting for prices and demographics for each hospital referral region—areas where people tend to receive medical care from similar providers (Dartmouth Institute for Health Policy and Clinical Practice 2015). Darker regions correspond to higher levels of per enrollee Medicare spending, which is a proxy for other types of health-care spending. Importantly, because these estimates already reflect

adjustments for the age, sex, and race characteristics of the regions, as well as cost-of-living differences that contribute to variation in the cost of health care, the regional differences in spending seen in the figure also reflect differences in the use of health-care services. In 2012 spending for the price- and characteristic-adjusted average Medicare enrollee in Miami (the region with the highest spending) was $13,596, whereas spending for an enrollee in Minneapolis (one of the regions with the lowest spending) was $7,998—a difference of 70 percent.

FIGURE 1.

Average Medicare Reimbursements per Enrollee, by Hospital Referral Region, Adjusted for Price, Age, Sex, and Race, 2012

In 2012, average Medicare reimbursements per enrollee ranged an adjusted $6,724 in the hospital referral region with the lowest spending to $13,596 in the region with the highest.

Legend:
- $6,724 – $8,264
- $8,264 – $9,121
- $9,121 – $9,899
- $9,899 – $10,525
- $10,525 – $13,596
- No Data

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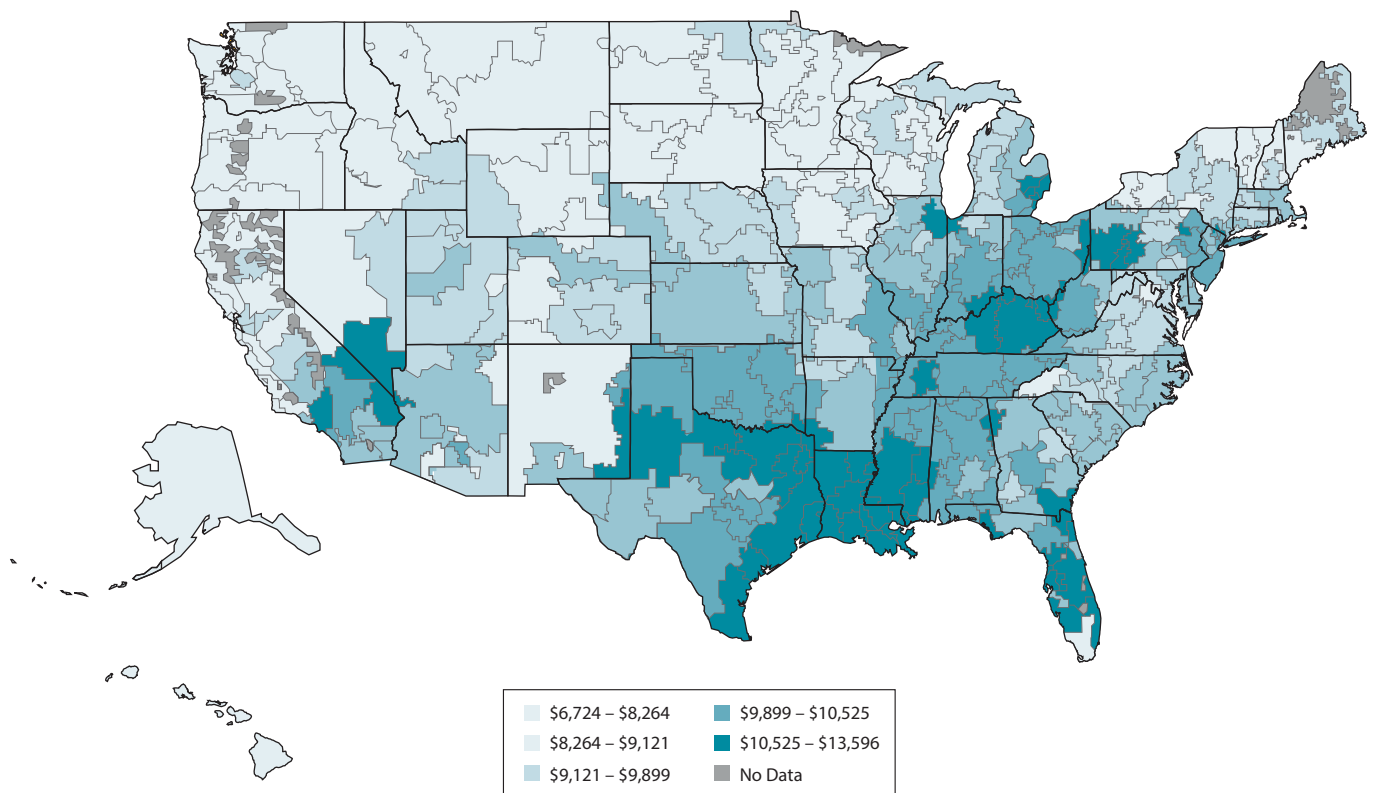
Source: The Dartmouth Institute for Health Policy and Clinical Practice (2015).

Health-care experts debate why regional differences in utilization and spending arise, even after adjusting for the prices and demographics of hospital referral regions (Skinner 2011). One explanation is that areas that tend to have patients with poorer health may use more, or more-costly, care (Chandra and Staiger 2007; Sheiner 2014). Higher spending might also arise in places where patients have stronger preferences for more-expensive treatments. However, it may also be that regional variation in spending arises from differences in the way medicine is practiced, reflecting the incentives that doctors face and the market structure of hospitals (e.g., Cutler et al. 2013; Sutherland, Fisher, and Skinner 2009). In one study, Finkelstein, Gentzkow, and Williams (2014) find roles for both patient and provider explanations, with practice styles and other location-specific factors accounting for roughly half of the regional differences in utilization.

Because there are many reasons why health-care spending and utilization differ across the United States—some of which remain unresolved—policy solutions to address high levels of spending must balance a number of considerations. If patient characteristics were to account for all of the observed variation, changes to practice styles would do little to alter health-care spending. However, if they do not account for all of the observed variation, there may be room to reduce spending by increasing the health benefits produced by a given level of inputs, including medical equipment, hospital beds, physicians, and nurses. By the same token, increasing the productivity of health-care inputs will not equalize health-care spending across the United States due to the variation in patient health and preferences, which suggests that policy interventions to achieve such equalization would be misguided.

2. In the United States, health-care spending has nearly doubled as a share of GDP since the 1980s, but not due to consumers' out-of-pocket expenses.

For much of the past five decades, growth in spending on health care has been faster than economic growth in the economy as a whole. As shown by the purple line in figure 2, health-care expenditures in 2014 accounted for an estimated 18 percent of GDP—a marked increase from 6 percent of GDP in 1965 (Centers for Medicare & Medicaid Services [CMS] 2015). However, from 2009 to 2014 total health-care expenditures as a share of GDP have been virtually constant.

The increase in nominal health spending has not been uniform across payers. The public sector's health expenditures have grown more quickly, mainly through Medicare, the federal government's health insurance program for individuals over age sixty-five and younger individuals with disabilities; and

Medicaid, the public sector's health insurance program for families with low income and resources. The share of spending by these two programs (not shown) increased from 7 percent of total health spending in 1966 to 36 percent in 2014 (CMS 2015). Patients' direct payments to health-care providers, also known as out-of-pocket spending, have grown less quickly. As shown by the blue line, out-of-pocket spending (which includes outlays for deductibles, copayments, and coinsurance) as a share of health spending has been trending down, on balance, from 44 percent in 1965 to 11 percent in 2014 (CMS 2015).

Several factors account for the growth in health-care expenditures and the tilt in spending toward Medicare and Medicaid. First, the growing share of Americans over the age

FIGURE 2.

U.S. Health-Care Expenditures as a Share of GDP and Out-of-Pocket Expenditures as a Share of Total Health Expenditures, 1965–2014

Growth in health-care spending in the United States has outpaced total economic growth over the past five decades, but out-of-pocket expenses have not.
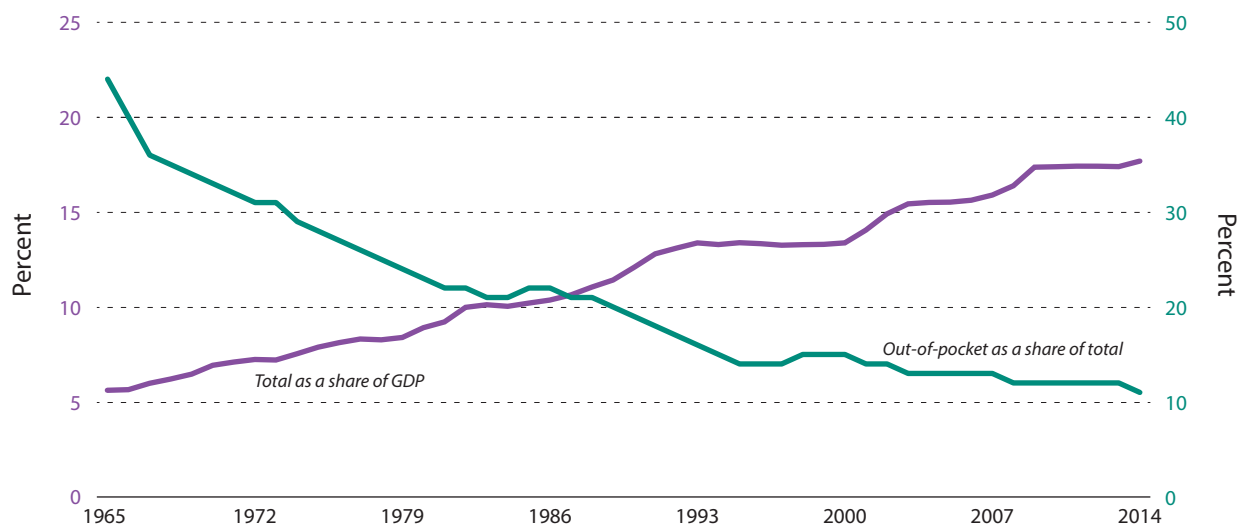
Source: Centers for Medicare & Medicaid Services (2015).

Note: 2014 data are projected.

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of sixty-five has increased enrollment in Medicare and has helped push up health spending because per capita medical costs are higher for those sixty-five and older than they are for younger individuals. Meanwhile, the aging of the population as well as coverage expansions in Medicare and Medicaid have led public sector enrollments to increase at a faster clip than enrollments for private insurance. Second, rising incomes over the past half-century have also led to higher per capita health spending (Smith, Newhouse, and Freeland 2009). Third, despite gradual changes in the way public and private insurers reimburse providers (i.e., physicians, hospitals, and drug companies), the prevalence of the fee-for-service payment model—where insurers reimburse providers based on the number and type of treatments—continues to drive spending growth by rewarding the quantity, but not necessarily the quality, of care provided.

Finally, and most importantly, experts point to the adoption of ever-more-sophisticated—and often very expensive—medical technologies as an important source of growth in health-care spending (Chandra and Skinner 2012). Generally speaking, technological advances have led to productivity gains and improvements in quality in the health-care sector, which have contributed to better health and well-being (Cutler 2004). However, among the many challenges with health-care technology, unlike in other sectors, the users of new treatments (e.g., patients, physicians, and hospitals) face just a fraction of the new treatments' costs while private insurance companies and taxpayers supporting Medicare and Medicaid—who do not directly use the technology—pay the remaining costs. As a result, the U.S. health-care system often pays for new, more-expensive therapies that might not be any more effective than those already in use (Chandra and Skinner 2012). Indeed, private insurers rarely make an explicit comparison between the costs and expected health benefits of new procedures and devices (Skinner 2013), and instead cover treatments that are termed "medically necessary," where such a designation is determined in part through judicial adjudication.

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CHAPTER 2:
Health-Care Spending Among Consumers

Even with insurance, many households still remain vulnerable to depleting their savings in the event that they experience a major illness or injury. Exacerbating this vulnerability, much evidence shows that Americans often choose plans for themselves that lead them to pay more for prescription drug coverage or health insurance than they otherwise need to.

3. Millions of households with health insurance do not have enough cash on hand to pay out-of-pocket medical expenses in the event of a major health shock.

4. On average, America's seniors are paying up to 34 percent more than necessary for prescription drug coverage by choosing plans misaligned with their needs.

3.
Millions of households with health insurance do not have enough cash on hand to pay out-of-pocket medical expenses in the event of a major health shock.

In 2013 approximately 80 percent of households with health insurance through an employer faced an average annual (family) deductible of roughly $2,500 for nonpreventive care (U.S. Department of Health and Human Services [DHHS] 2014b, 2014c). In the event of a large medical expense, the average household would have had to pay this deductible before plan coverage began. As seen in figure 3, more than one in three nonelderly households with employer-sponsored insurance did not have enough liquid assets—funds in checking, savings, or money market accounts—to meet this average deductible. One in five did not have enough cash on hand to pay a smaller deductible of $1,000. Furthermore, 25 percent of families reported in 2012 that medical care imposed a financial burden (Cohen and Kirzinger 2014).

Extremely large medical expenses are rare for the typical household, but households that do face these costs without sufficient cash must turn to other means: reducing their spending on other goods and services, drawing down a retirement account, or borrowing. In some cases, the least-poor choice may be to forgo needed medical care; but in other cases patients in insured households, along with those without insurance, may have to rely on uncompensated care from hospitals. Annual outlays on uncompensated care are large: in 2012 nonprofit and for-profit hospitals provided nearly $46 billion in uncompensated care to households without the means to pay (Garthwaite, Gross, and Notowidigdo 2015). Nevertheless, many low-income individuals are still susceptible to large medical debts, suggesting that the health-care safety net could be further strengthened (Dranove, Garthwaite, and Ody 2015).

FIGURE 3.

Share of Nonelderly Households with Employer-based Health Insurance That Have Liquid Assets below Selected Cutoffs, 2013

In 2013 roughly one in three nonelderly households with employer-based insurance had less than $2,500 in their combined checking, savings, and money market accounts.
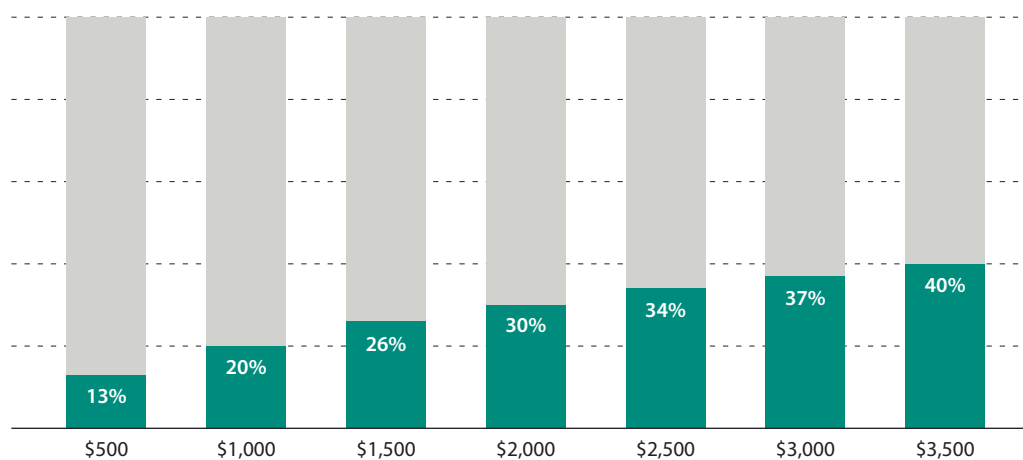
Source: Survey of Consumer Finances (2014).

4.

On average, America's seniors are paying up to 34 percent more than necessary for prescription drug coverage by choosing plans misaligned with their needs.

Several studies find that consumers spend more on health insurance and prescription drug plans than they need to by choosing a plan that is not well-aligned with their needs. As seen in figure 4, among elderly consumers choosing from Medicare Part D prescription plans through private insurers (shown in blue), the average enrollee's annual spending on premiums and out-of-pocket costs is 5 to 34 percent higher than if she were to choose a lower-cost option providing the same level of coverage. For those choosing from health insurance plans offered by large employers (shown in purple), the excess amount paid by consumers for premiums and out-

of-pocket costs is similarly large, ranging between 18 and 45 percent of the total cost of insurance.

This excess spending arises because, for a given level of health-care utilization, plans differ in how much they charge in up-front premiums and in out-of-pocket costs, and consumers must choose a plan before they precisely know which (and how many) health services they will use. Research finds that many consumers do not understand the components of their plan, including what out-of-pocket costs they will face when receiving care, what medical services and prescription drugs

FIGURE 4.

Excess Insurance Payments Due to Misaligned Plan Choices, as a Percent of Consumer Spending on Drug or Health Insurance

Recent studies of prescription drug and health insurance markets show that improving consumers' choices over plans could lead to substantial savings.
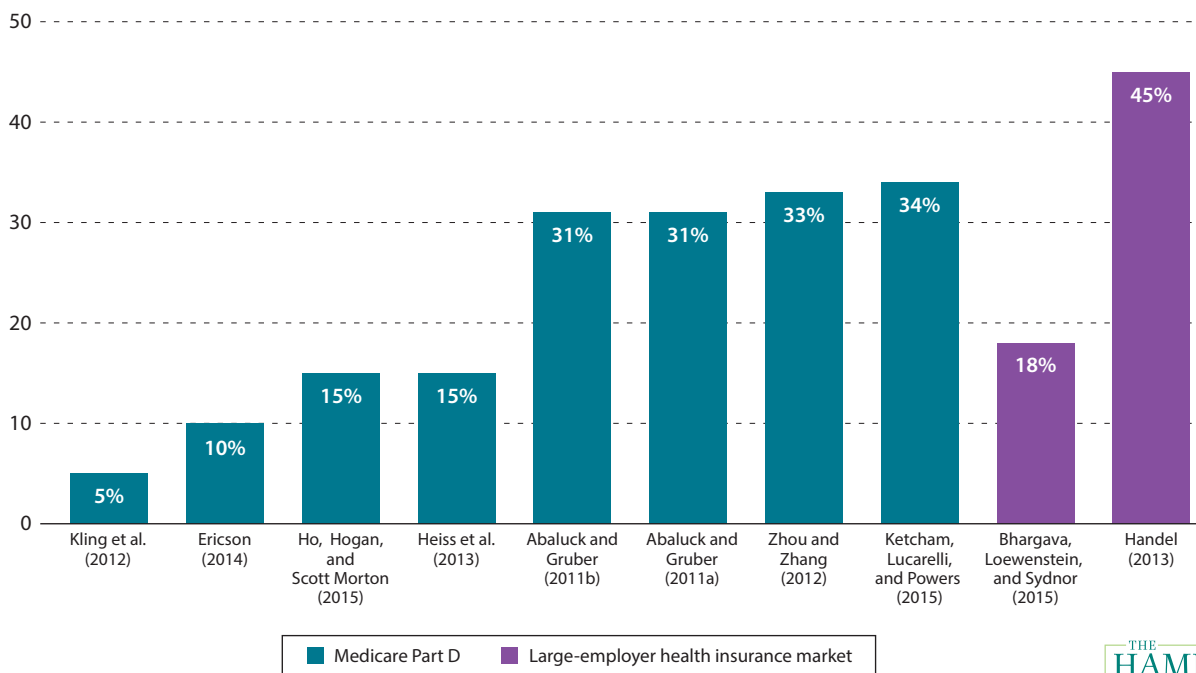
Source: Listed on x-axis. Kling et al. includes Kling, Mullainathan, Sharif, Vermeulen, and Wrobel; Heiss et al. includes Heiss, Leive, McFadden, and Winter.

Note: The samples and methodologies used in each study vary, limiting applicability to current insurance markets. Excess costs in Ericson (2014) are shown as a percent of spending on premiums. Excess costs in Abaluck and Gruber (2011a) are shown as a percent of out-of-pocket spending. A full discussion of the graphed values can be found in the technical appendix.

will be covered, and which hospitals and doctors they can use (Loewenstein et al. 2013). In addition, consumers need to make a short-term forecast about the amount and type of health-care services they are likely to need, which then determines their estimated costs given their plan's deductibles and coinsurance payments. In predicting these costs as they choose among plans, consumers can easily miscalculate their health and financial risks.

The implied costs can be substantial but experts debate why. In studies of large employer-based plans, Bhargava, Loewenstein, and Sydnor (2015) find that consumers could have saved $353 dollars each year with better-informed plan selection. Handel and Kolstad (2015) find similar evidence on the costs consumers are likely to incur from lacking information about plans' coverage of providers and treatments. They find that the least-informed consumers pay in excess of $2,000 when choosing a plan relative to the most-informed consumers. In the Medicare Part D prescription drug market, Abaluck and Gruber (2011b) observe that consumers pay too much attention to monthly premiums compared to out-of-pocket costs, and as a result fail to match their individualized needs with the right prescription drug plan—Abaluck and Gruber (2011a) estimate that consumers incur $237 to $296 in excess annual out-of-pocket spending. By contrast, Zhou and Zhang (2012) observe that consumers pay too much attention to out-of-pocket costs and too little attention to monthly premiums when they make their plan choices in Medicare Part D.

Moreover, studies find that consumers exhibit inertia and are slow to switch plans even when it would be financially beneficial for them to do so. In other words, once a consumer has chosen a health plan, she is not likely to switch out of it, even if her needs change over time. The reasons for this inertia

range from consumers having incorrect beliefs about the potential gains from switching plans; to consumer inattention, procrastination, and the burden of learning about alternative options (see Handel 2013 for a discussion). Studying enrollment decisions among workers from one large employer, Handel (2013) estimates that inertia leads consumers to incur about $2,000 more in out-of-pocket costs than if they had switched to a plan that was better suited to their needs. Researchers find that participants choosing among Medicare Part D plans have similarly incurred excess expenses and, looking across studies, consumers could save between 5 and 34 percent of their health-care spending dollars, or $50 to roughly $500 annually (Ericson 2014; Ho, Hogan, and Scott Morton 2015; Ketcham, Lucarelli, and Powers 2015; Kling et al. 2012).

The complexity of health insurance decisions—with the need to predict likely use of health care and to understand the cumulative costs for both premiums and out-of-pocket costs—means that consumers are prone to paying more for health insurance than they need to. As a result, and as described in Fact 6, some scholars have discussed the possibility of limiting consumer choice in the selection of health insurance (refer to Fact 6; also see Frank and Lamiraud 2009; Leibman and Zeckhauser 2008; Sinaiko and Hirth 2011). However, as discussed in Gaynor, Ho, and Town (2015), sometimes consumers are able to improve upon past decisions. For example, Ketcham, Lucarelli, and Powers (2015) note that Medicare Part D plan holders incurring the largest excess health insurance expenses after selecting a plan in 2006 were more likely to switch to less-expensive plans the following year. After five years of enrollment, annual out-of-pocket costs declined notably but were still about 21 percent more for these consumers than if they had instead selected the minimum-cost plan available in that year.

CHAPTER 3:
Choosing among Employer-Sponsored Plans

Through employers, private insurers offer Americans numerous health insurance options that vary in coverage and cost. Choosing the right plan entails navigating many complex dimensions of insurance plans and weighing them against the risk of needing care.
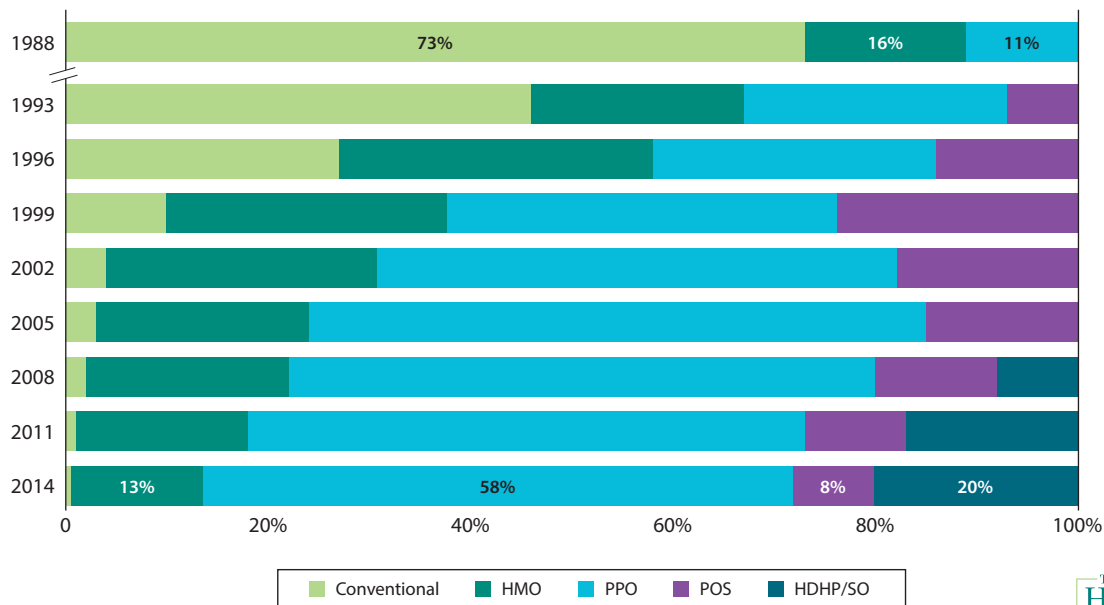
5. Over the past three decades the percent of American workers enrolled in conventional health insurance plans has declined from 73 percent to less than 1 percent.

6. Over the past two decades, there has been a nearly 50 percent increase in the share of private sector workers who are offered a choice of health insurance plans.

5.

Over the past three decades the percent of American workers enrolled in conventional health insurance plans has declined from 73 percent to less than 1 percent.

During the past twenty-five years, the types of employer-based health insurance plans covering workers have changed dramatically. Conventional plans, shown in light green (figure 5), were formerly the dominant type and covered all services and providers in exchange for a monthly premium. Today, the preferred provider organization (PPO) health insurance plan, shown in light blue, is the most commonly purchased option, covering 58 percent of eligible employees. PPO plans provide access to similar insurance coverage for services as a conventional plan but, typically, for a lower premium. In exchange, PPO plans charge beneficiaries a higher rate for services obtained from providers outside a network of preferred providers.

While PPO plans are the dominant plan today, some workers are choosing other insurance options, such as health maintenance organization (HMO) plans. These plans also feature low premiums but have more-restrictive provider networks than PPOs and account for a dwindling share of covered workers. Point-of-service (POS) plans, covering 8 percent of workers in 2014, allow patients to venture outside of the network at a higher cost, similar to a PPO. However, POS plans feature generally lower copayments, and in exchange patients must pay an annual deductible out-of-pocket before receiving coverage. High-deductible health plans with savings options (HDHP/SOs) are the newest type of plan, enrolling one in five workers in 2014. HDHP/SOs are

FIGURE 5.

Employer-Provided Enrollment by Plan Type, 1988–2014

The share of net worth in retirement accounts for households near retirement age tripled between 1989 and 2013 but still accounts for just one-third of their wealth.

similar to the POS model but feature even lower premiums and higher annual deductibles, often in the $2,000 to $3,000 range for single coverage (Claxton et al. 2014). In order to help consumers to pay these deductibles, HDHP/SOs are generally coupled with tax-preferred health savings options.

These changes reflect a shift in the health insurance industry toward greater cost-sharing, where patients pay for a portion of their medical bills, and a narrowing of provider networks that have led to lower negotiated provider prices. In conventional plans that were previously dominant, patients did not face any financial costs when obtaining additional treatments because their insurance provider fully covered their health services (Feldstein and Gruber 1994). To curb potentially unnecessary spending, insurance companies introduced cost-sharing mechanisms like copayments and deductibles to make beneficiaries more responsive to the price of their care. Evidence suggests that utilization of these types of consumer incentives has helped slow the growth rate of health expenditures, as discussed in Fact 2 (Chandra, Holmes, and Skinner 2013).

6.

Over the past two decades, there has been a nearly 50 percent increase in the share of private sector workers who are offered a choice of health insurance plans.

Of the roughly 116 million Americans working in the private sector in 2014 (DHHS 2014b), 56 percent were able to choose their health insurance plan from more than one employer-sponsored option, up from 38 percent in 1996 (DHHS 2014a). This rising trend reflects, in part, employers voluntarily offering more options and insurance companies creating more plan options.

Consumer choice in selecting health insurance plans also extends to Americans who obtain insurance outside of the employer-sponsored system. For instance, part-time workers and contractors may purchase health insurance through the federal or state health insurance marketplaces where they may choose among four tiers of plans from numerous issuers (Burke, Misra, and Sheingold 2014). Also, those

receiving Medicare—the federal health insurance program for people aged sixty-five or older and younger individuals with disabilities—must choose between traditional Medicare or one of numerous Medicare-approved plans from private insurers (also known as Medicare Advantage). Medicare Part D, the prescription drug plan for elderly households, offers thirty different plans, on average, with no fewer than twenty-four plans available in each state (Hoadley et al. 2014).

Choosing a health insurance plan can be complicated. Typically, enrollees are asked to consider at least four dimensions in selecting coverage: (1) premiums and expected out-of-pocket expenses, (2) coverage and benefit levels, (3) access to doctors and hospitals, and (4) the availability of health and wellness resources to help them stay healthy

FIGURE 6.

Percent of Private Sector Employees Working for Firms Offering Health Insurance Options, 1996–2014

In 2014, 56 percent of private sector employees were given a choice of health insurance plans, up from 38 percent in 1996.
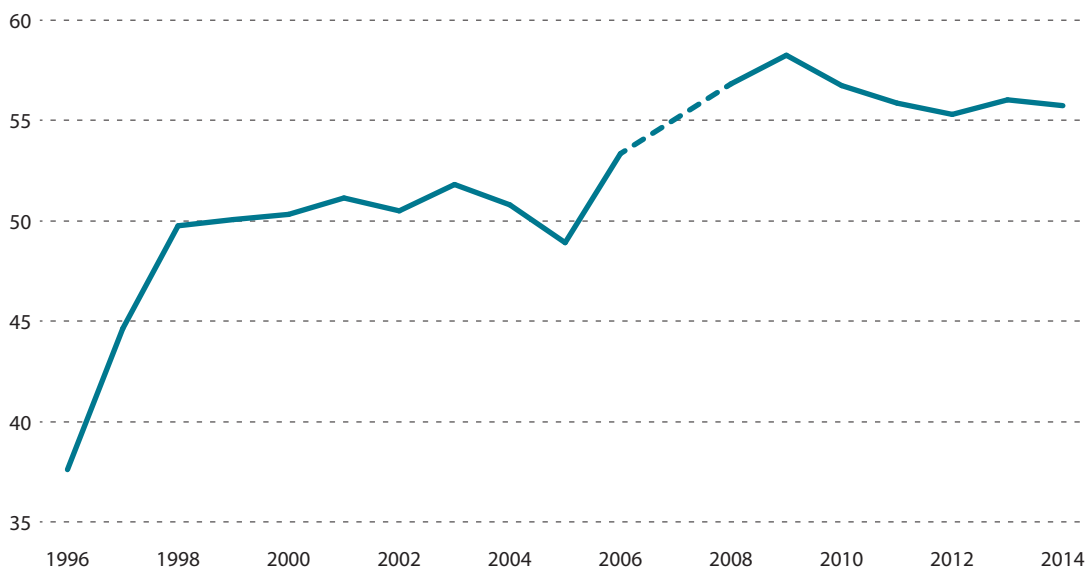
Source: U.S. Department of Health and Human Services (2014a).

Note: "Choice" is defined as two or more health insurance plans offered by the employer. Values for 2007 were not available and have been imputed in the figure (shown by a dashed line).

(United Healthcare n.d.a). For enrollees, calculating the cost they will likely face for a health plan is further complicated by the ways different plans treat premiums (monthly coverage payments), deductibles (the amount enrollees must pay before health-care providers cover the remaining costs), copayments and coinsurance (what enrollees pay every time they use a service, as a set fee or as a percent of the bill, respectively), out-of-pocket maximums, and health savings accounts (Claxton, Cox, and Rae 2015). In assessing the expected costs and benefits of each available plan, enrollees must project what their risk is of requiring medical treatment, and for families buying insurance, enrollees must undertake these complex calculations for each member (United Healthcare n.d.b).

Given the complexity of the choices, it is not surprising that many studies find consumers select plans that are not well-aligned to their expected needs and preferences (Frank and Lamiraud 2009; Leibman and Zeckhauser 2008; Sinaiko and Hirth 2011; also see figure 4). For instance, individuals who are healthier or more willing to take risks sometimes choose plans with high premiums and coverage levels, when they could choose lower-premium- and less-extensive-plans that more closely align to their risk tolerance and expected medical needs. Studies have also shown that facing too many choices can be overwhelming for consumers, reducing their ability to discern among options and causing them to make worse decisions for themselves (Cronqvist and Thaler 2004; Iyengar and Lepper 2000). Moreover, enrollees in health insurance do not change insurance plans frequently, so even if their current plan is not well-aligned with their preferences or if their expected coverage needs—and optimal insurance coverage—change, they tend not to switch. As discussed more fully in Fact 4, the cost of making these mistakes can be quite high, pointing to a role for policy interventions to aid consumer decision-making.

However, even if consumers were to choose insurance policies that are more closely aligned with their risk tolerance and expected medical needs, it might not necessarily make them better off, due to offsetting factors at work in the health insurance market, which in turn presents challenges and trade-offs for those offering and designing health insurance plans. More specifically, in health insurance markets, when consumers choose plans in their best interest, healthier individuals will opt to purchase cheaper options with less coverage while less-healthy individuals buy more-comprehensive and more-expensive plans (McGuire 2012; Rothschild and Stiglitz 1976). If this segmentation is severe enough, then adverse selection in the insurance market can lead insurers to offer only more-comprehensive plans—at higher prices—to the small group of individuals requiring more-expensive treatments, thus deterring both healthy and unhealthy individuals from purchasing insurance (Cutler and Reber 1998). Indeed, Handel (2013) provides an example of how consumers making better choices for themselves can lead to lower overall welfare due to these off-setting factors.

Technical Appendix

Fact 1. Spending on health-care resources varies widely across the country: spending for the average Medicare enrollee in Miami is nearly 70 percent greater than in Minneapolis.

Figure 1. Average Medicare Reimbursements per Enrollee, by Hospital Referral Region, Adjusted for Price, Age, Sex, and Race, 2012

Source: The Dartmouth Institute for Health Policy and Clinical Practice (2015).

Note: Hospital referral regions are defined by assigning hospital service areas to the region where the greatest proportion of major cardiovascular procedures are performed, with minor modifications to achieve geographic contiguity, a minimum population size of 120,000, and a high localization index. A hospital service area is a collection of zip codes whose residents receive most of their hospitalizations from the hospitals in that area. Medicare reimbursements shown in the figure correspond to a random sample of enrollees belonging to both the Medicare A (inpatient) and B (physician services) programs.

Fact 2. In the United States, health-care spending has nearly doubled as a share of GDP since the 1980s, but not due to consumers' out-of-pocket expenses.

Figure 2. U.S. Health Care Expenditures as a Share of GDP and Out-of-Pocket Expenditures as a Share of Total Health Expenditures, 1965–2014

Source: Centers for Medicare & Medicaid Services (2015).

Note: Data are from the Centers for Medicare & Medicaid Services' (2015) National Health Expenditure Accounts. "Out-of-pocket as a share of total" is calculated by dividing, for each year shown, nominal out-of-pocket health-care spending by total nominal health-care spending. "Total as a share of GDP" is calculated by dividing, for each year shown, total nominal health-care spending by nominal GDP.

Fact 3. Millions of households with health insurance do not have enough cash on hand to pay out-of-pocket medical expenses in the event of a major health shock.

Figure 3. Share of Nonelderly Households with Employer-based Health Insurance that have Liquid Assets below Selected Cutoffs, 2013

Source: Survey of Consumer Finances (2014).

Note: Estimates are from the 2013 Survey of Consumer Finances (2014) based on a sample of households whose net worth is below the 90th percentile, whose head is younger than 65, and who have health insurance other than Medicaid. In the figure, each bar is calculated by dividing the number of these households that have liquid assets below the shown cutoff by the total number of households in the sample. All estimates are weighted to account for the over-sampling of high-net-worth households.

Fact 4. On average, America's seniors are paying up to 34 percent more than necessary for prescription drug coverage by choosing plans misaligned with their needs.

Figure 4. Excess Insurance Payments due to Misaligned Plan Choices

Note: The following presents a short summary of the studies cited in the graph. As noted, in a few of the cited studies the denominator is not total consumer costs, but rather out-of-pocket costs or premiums. In some of the studies, the share of total consumer costs was not drawn from direct estimates in the study but was instead calculated using the study's separate estimates for excess consumer costs and total consumer costs.

In Kling et al. (2012), recipients of a letter detailing personalized cost information were more likely to switch to lower-cost Medicare Part D prescription drug plans (28 percent versus 17 percent among the control group), and savings for the entire intervention group—not just those who switched plans—were about $100, or 5 percent of the average predicted cost of the control group.

Ericson (2014) examines Medicare Part D plan data and shows that insurance providers engage in an "invest then harvest" strategy, setting premiums lower initially to attract consumers and relying on their inertia once they have settled into a plan to retain them while raising prices. Ericson finds

that plans in their fifth year price premiums 10 percent higher, or about $50 more, per year, than equivalent plans that were newly introduced.

Ho, Hogan, and Scott Morton (2015) use detailed data on Medicare Part D enrollees from New Jersey to simulate a model of consumer plan choice with inattentive consumers and a model of firm pricing to determine how premiums and out-of-pocket consumer spending changes when consumer inattention is removed and premiums adjust accordingly. The authors find per person spending over the three-year period 2007–2009 would fall from $3,809.90 to $3,246.50, resulting in savings of $563.40, or 14.8 percent of baseline costs.

Heiss et al. (2013) examine Medicare Part D enrollment choices using a large random sample from the Centers for Medicare and Medicaid Services and find that consumers have expected excess spending of about $300 per year, or 15 percent of total expected out-of-pocket costs and insurance coverage.

Abaluck and Gruber (2011b) estimate that Medicare Part D plan holders could save 30.9 percent of their total spending by choosing the lowest-cost plan. The authors employ a perfect foresight model of expectations using actual expenditures from 2006 to estimate cost savings from switching plans.

Abaluck and Gruber (2011a) employ a unique prescription drug data set containing information about drug utilization and plan choice under Medicare Part D and determine that in 2005, only about 12 percent of patients chose cost-minimizing plans and that enrollees could save $296 dollars, or 31 percent of out-of-pocket costs, if they chose the cost-minimizing plan rather than the plan they actually selected (refer to table 1 of the authors' paper).

In Zhou and Zhang (2012), the actual costs of drugs used in 2009 for a sample of Medicare Part D enrollees was calculated for each available plan, and then the lowest-cost plan was compared to the enrollees' actual plan. Median overspending for prescription drug coverage was $331. The value shown in the graph (33.4 percent) is the median overspending divided by the median annual patient spending (out-of-pocket costs plus premiums) for 2009, estimated at $990.

Ketcham, Lucarelli, and Powers (2015) observe that in 2006 above-minimum spending among Medicare Part D enrollees was $514, or 33.8 percent of total spending (which includes out-of-pocket expenses and premiums). The sample only includes those consumers that were enrolled in a prescription drug plan from the beginning of 2006 to the end of 2010 and did not receive a low-income subsidy during this period.

Bhargava, Loewenstein, and Sydnor (2015) employ plan enrollment data from a large firm in 2010–11 to examine workers' health insurance choices. They find that employees enrolled in plans with deductibles less than $1,000 could have saved an average of $353 in after-tax dollars if they had instead selected the plan with the $1,000 deductible. To arrive at 18.1 percent—the share reported in figure 4—the amount that employees could save from switching to the plan with the $1,000 deductible is divided by total employee medical spending on premiums and out-of-pocket expenses (given as $1,947 in table 2 of the authors' paper). The actual share of employee spending that could be saved from switching plans will vary to the extent that total medical spending for those changing plans differs from the mean value reported in table 2.

In Handel (2013), health insurance choices of employees at a large firm are studied from 2004 to 2009. The share of excess costs due to consumer inertia is 45.2 percent, calculated as the amount forgone by the average employee ($2,032; see table 5 of the author's paper) divided by the total spent annually on health insurance by the average employee's family ($4,500).

Fact 5. Over the past three decades the percent of American workers enrolled in conventional health insurance plans has declined from 73 percent to less than 1 percent.

Figure 5. Employer-Provided Enrollment by Plan Type, 1988–2014

Source: Henry J. Kaiser Family Foundation (2014), The Henry J. Kaiser Family Foundation/Health Research & Educational Trust (Kaiser/HRET) Survey of Employer-Sponsored Health Benefits (1999–2012), and the KPMG Survey of Employer-Sponsored Health Benefits (1993 and 1996).

Note: Estimates are from the Henry J. Kaiser Family Foundation (2014), which combined the results of their annual Survey of Employer-Sponsored Health Benefits with the results from the 1993 and 1996 KPMG Survey of Employer-Sponsored Health Benefits. A portion of the change in plan type enrollment for 2005 is likely attributable

to incorporating more-recent U.S. Census Bureau estimates of the number of state and local government workers, and to removing federal workers from the weights. See the Survey Design and Methods section from the 2014 Employer Health Benefits Survey for additional information.

Fact 6. Over the past two decades there has been a nearly 50 percent increase in the share of private sector workers who are offered a choice of health insurance plans.

Figure 6. Percent of Private-Sector Employees Working for Firms Offering Health Insurance Options, 1996–2014

Source: U.S. Department of Health and Human Services (2014a).

Note: Estimates for this figure come from the Medical Expenditure Panel Survey (or MEPS) for the years 1996 to 2006 and 2008 to 2014. (As noted in the figure, MEPS data for this panel were not available for 2007; this is due to the transition from retrospective to current data collection.) To calculate the percent of private sector employees working for firms offering health insurance choices, annual values for the percent of private sector employees working in establishments that offer two or more health insurance plans among firms offering health insurance (DHHS 2014a, Table I.B.2.c) were multiplied by the corresponding annual values for the percent of private-sector employees in establishments that offer health insurance (DHHS 2014a, Table I.B.2). For additional information regarding how this information was collected, refer to the MEPS. Private sector employees are defined as full- or part-time workers; this category excludes contract laborers.

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Average Medicare Reimbursements per Enrollee, by Hospital Referral Region, Adjusted for Price, Age, Sex, and Race, 2012

In 2012, average Medicare reimbursements per enrollee ranged an adjusted $6,724 in the hospital referral region with the lowest spending to $13,596 in the region with the highest.

☐ $6,724 – $8,264	☐ $9,899 – $10,525
☐ $8,264 – $9,121	☐ $10,525 – $13,596
☐ $9,121 – $9,899	☐ No Data
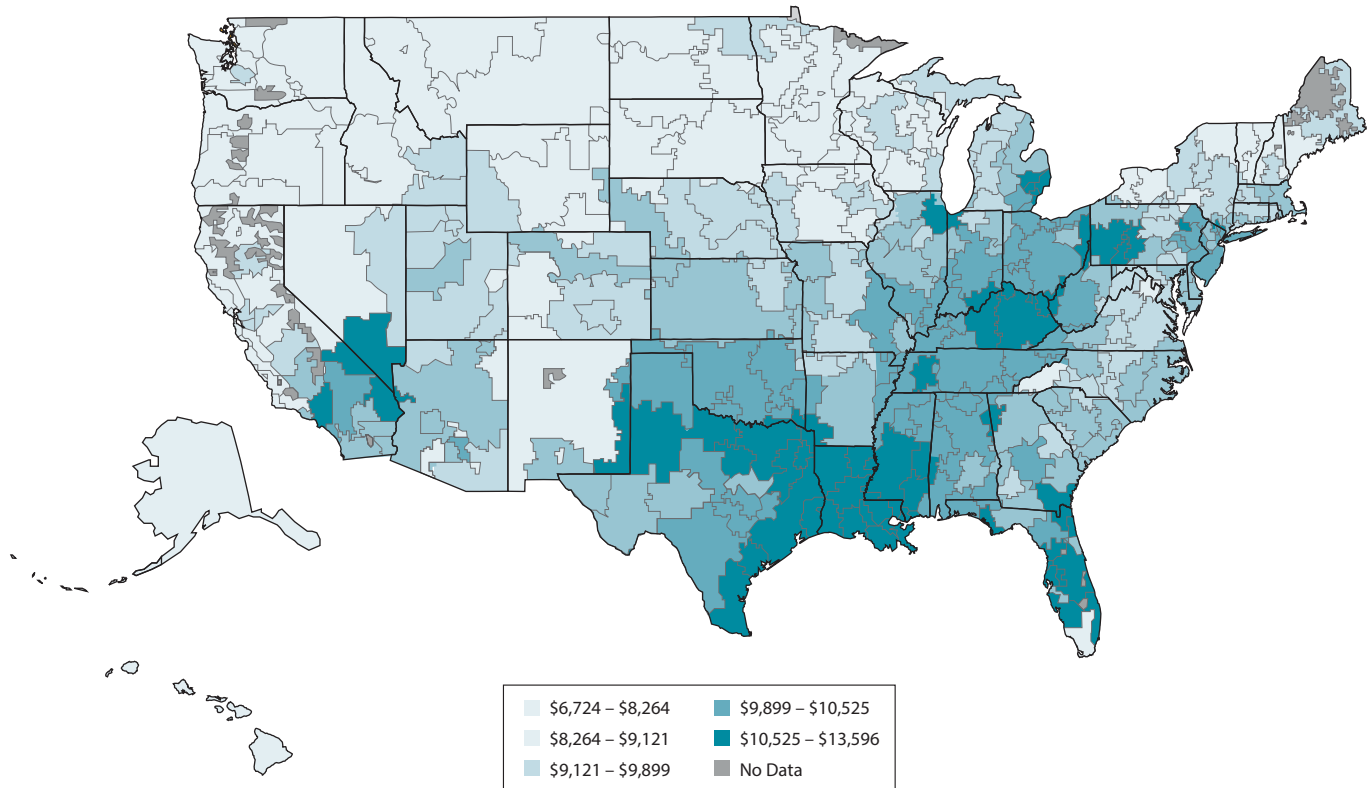
Source: The Dartmouth Institute for Health Policy and Clinical Practice (2015).

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Health Care Facts:

1. Spending on health-care resources varies widely across the country: spending for the average Medicare enrollee in Miami is nearly 70 percent greater than in Minneapolis.

2. In the United States, health-care spending has nearly doubled as a share of GDP since the 1980s, but not due to consumers' out-of-pocket expenses.

3. Millions of households with health insurance do not have enough cash on hand to pay out-of-pocket medical expenses in the event of a major health shock.

4. On average, America's seniors are paying up to 34 percent more than necessary for prescription drug coverage by choosing plans misaligned with their needs.

5. Over the past three decades the percent of American workers enrolled in conventional health insurance plans has declined from 73 percent to less than 1 percent.

6. Over the past two decades, there has been a nearly 50 percent increase in the share of private sector workers who are offered a choice of health insurance plans.

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WHAT DOES A DEDUCTIBLE DO? THE IMPACT OF COST-SHARING ON HEALTH CARE PRICES, QUANTITIES, AND SPENDING DYNAMICS

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Amitabh Chandra
Benjamin R. Handel
Jonathan T. Kolstad

What Does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics
Zarek C. Brot-Goldberg, Amitabh Chandra, Benjamin R. Handel, and Jonathan T. Kolstad
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ABSTRACT

Measuring consumer responsiveness to medical care prices is a central issue in health economics and a key ingredient in the optimal design and regulation of health insurance markets. We study consumer responsiveness to medical care prices, leveraging a natural experiment that occurred at a large self-insured firm which forced all of its employees to switch from an insurance plan that provided free health care to a non-linear, high deductible plan. The switch caused a spending reduction between 11.79%-13.80% of total firm-wide health spending ($100 million lower spending per year). We decompose this spending reduction into the components of (i) consumer price shopping (ii) quantity reductions (iii) quantity substitutions, finding that spending reductions are entirely due to outright reductions in quantity. We find no evidence of consumers learning to price shop after two years in high-deductible coverage. Consumers reduce quantities across the spectrum of health care services, including potentially valuable care (e.g. preventive services) and potentially wasteful care (e.g. imaging services). We then leverage the unique data environment to study how consumers respond to the complex structure of the high-deductible contract. We find that consumers respond heavily to spot prices at the time of care, and reduce their spending by 42% when under the deductible, conditional on their true expected end-of-year shadow price and their prior year end-of-year marginal price. In the first-year post plan change, 90% of all spending reductions occur in months that consumers began under the deductible, with 49% of all reductions coming for the ex ante sickest half of consumers under the deductible, despite the fact that these consumers have quite low shadow prices. There is no evidence of learning to respond to the true shadow price in the second year post-switch.

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1 Introduction

Spending on health care services in the United States has grown rapidly over the past 50 years, increasing from 5.0% of GDP in 1960 to 17.4% in 2013 [CMS (2015)]. As health care spending has risen, policymakers, large employers, and insurers have grappled with the problem of how to limit growth in health care spending without substantially reducing the quality of medical care consumed. One approach to addressing cost growth is to rely on demand side incentives by exposing consumers with insurance to a greater portion of the full price for health care services. Increasingly both public programs, such as Medicare and state-based insurance exchanges, and employers have moved towards a reliance on these demand side incentives. For example, in 2014, 41% of consumers with employer provided coverage had individual deductibles greater than $1,000, up from 22% in 2009 [Kaiser Family Foundation (2015)]. Moreover, the share of employers offering only high-deductible coverage in 2014 was 16% and projected to increase markedly to 30% for 2015 [Towers Watson (2014)].

Assessing the appropriate combination of supply side policies, which aim to directly restrict the technologies and services consumers can access, and demand side policies depends on how consumers respond to cost-sharing. Accordingly, consumer responsiveness to medical care prices has been studied in great detail in large scale randomized control trials, notably in the RAND Health Insurance Experiment [Newhouse and the Insurance Experiment Group (1993)], the Oregon Health Insurance Experiment [Finkelstein et al. (2012)] and, more recently, in quasi-experimental studies of high-deductible care plans. While the bulk of the evidence suggests higher prices reduce spending, there is limited evidence on precisely how these spending reductions are achieved. Consequently many employers and regulators worry that increased consumer cost-sharing is a relatively blunt instrument in the sense that (i) it may cause consumers to cut back on needed (as well as wasteful) services [Baicker et al. (2013), Haviland et al. (2012)] and (ii) consumers may not appropriately understand the nature of the price incentives embedded in their insurance contracts [Handel and Kolstad (2015)].[1]

In this paper we use a new proprietary dataset from a large self-insured firm to better understand precisely how and why consumers reduce medical spending when faced with higher cost-sharing. Prior to 2013, almost all of the approximately 52,000 employees (and 105,000 dependents) at the firm were enrolled in a generous insurance option with no cost-sharing (i.e. completely free medical care) and a broad set of providers and covered services. For 2013 (and after), the firm discontinued this popular option, forcing all of its employees enrolled in that plan into a non-linear high-deductible insurance plan that, for the population on average, paid 78% of total employee expenditures in 2013. Importantly, this high-deductible plan gave access to the same providers and medical services as the prior free option leaving only variation in financial features. With this context in mind, we observe detailed administrative data, spanning 2009-2014, with individual-level line by line health claims providing granular information on medical spending, medical diagnoses,

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[1]See also, e.g., a recent Modern Healthcare article on the high-deductible plan experience and concerns of Fed Ex and other large employers at `http://www.modernhealthcare.com/article/20150613/MAGAZINE/306139981`.

and patient-provider relationships. In addition to this comprehensive health data, over this span we observe employee and dependent demographic and employment characteristics as well as data on several linked benefit decisions (such as Health Savings Account elections and 401(k) contributions). Employees at the firm are relatively high income (median income $125,000-$150,000), an important fact to keep in mind when interpreting our analysis.[2] In addition, post-switch there is no meaningful change in the relatively small rates of employee entry or exit from the firm.

The forced firm-wide change from free health care to high-deductible insurance constituted both a substantial increase in average employee cost-sharing and a meaningful change in the structure and complexity of that cost-sharing. We use this natural experiment, together with the detailed data described to assess several aspects of how consumers respond to this increased cost-sharing. First, we develop a causal framework to understand how spending changed, in aggregate and for heterogeneous groups and services. In doing so, we account for both medical spending trends and consumer spending in anticipation of the forced plan switch.[3] We find that the forced switch to high-deductible care caused a spending reduction of between 11.09-15.42% for 2013 (equal to $82.06-111.88 million), with the bounds reflecting a range of assumptions on how much anticipatory spending at the end of 2012 would have been spent under higher marginal prices in 2013. Spending was causally reduced by 12.48% for 2014 relative to 2012, implying that this reduction persists in the second year post-switch. These numbers are broadly consistent with other recent work quantifying the impact of high-deductible coverage on total medical spending: see, e.g., Haviland et al. (2015), Lo Sasso et al. (2010), and Buntin et al. (2011) for specific examples and Cutler (2015) for a brief overview.[4][5] We translate our estimate into a semi-arc elasticity so that it can be directly compared to prior work in the literature, and estimate that this lies in the range -0.59 to -0.69, about a third of the effect found in the oft-cited RAND Health Insurance Experiment.[6][7]

Our initial treatment effect analysis also leverages the detailed data to study heterogeneous effects for different types of consumers and different types of medical services. We find causal

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[2]Employees received an up front lump sum subsidy post-switch into their Health Savings Accounts (HSA), similar in value to the population average of out-of-pocket payments in that plan. While there is some nuance in how these funds are valued, they are similar to a straight income transfer that compensates employees, on average, for these increased out-of-pocket payments. This transfer mirrors the experimental design used to address income effects in the RAND HIE [Newhouse and the Insurance Experiment Group (1993)].

[3]Two recent papers, Cabral (2013) and Einav et al. (2013a), quantify intertemporal substitution of spending as a function of how insurance contracts evolve for an individual over time, in dental insurance and Medicare Part D prescription drug insurance respectively. These studies point to the importance of quantifying these effects in our context in order to establish the causal impact of the switch to high-deductible care on medical spending.

[4]These prior analyses do not integrate the impacts of anticipatory spending, which we show can be important.

[5]Kowalski (2013) studies price sensitivity in a large employer setting using other family members' spending as an instrument for marginal price. Cardon and Hendel (2001) and Einav et al. (2013b) focus on separately identifying adverse selection and moral hazard in large employer settings, an issue we don't face because of the policy change. Several other papers identify price sensitivity by investigating dispersion around non-linear contract kink points.

[6]See, e.g., Newhouse and the Insurance Experiment Group (1993) for a summary of the RAND results, which typically compute arc elasticities, not semi-arc elasticities to represent price sensitivity. We use semi-arc elasticities, because, for a change starting from (or ending in) a health plan with 0 price for consumers, an arc elasticity yields an estimate that does not reflect the magnitude of the price change. We compute RAND semi-arc elasticities using statistics in Newhouse and the Insurance Experiment Group (1993).

[7]As discussed in Aron-Dine et al. (2012) and Einav et al. (2013a), these elasticity measures substantially simplify consumer price responsiveness by aggregating responses to differential non-linear contract incentives into one price measure, an issue that we address directly when studying consumer responses to non-linear contract features here.

reductions in spending across all categories of health spending including inpatient care (7-11%), outpatient spending (6-12%), ER spending (25%), pharmaceutical spending (15-17%), and preventive health spending (5-8%). Though quite different in terms of context, these results mirror those found in the RAND Health Insurance Experiment [see e.g. Lohr et al. (1986)) and the Oregon Medicaid Experiment (Finkelstein et al. (2012)], in the sense that consumers reduce quantities across the range of medical services in response to high cost-sharing. A key finding is that the sickest quartile of consumers causally reduce medical spending by between 18-22% from 2012 to 2013, post-switch.[8] This is puzzling viewed through a standard lens of forward looking, rational (*homo economicus*) consumers, since these consumers are relatively wealthy and the true shadow price of care for these consumers is close to zero throughout the year, given the structure of the non-linear high-deductible contract. This finding motivates our analyses of (i) price shopping / quantity reductions and (ii) consumer responses to the complex structure of the non-linear high-deductible contract, both of which dive into much more detail on how these spending reductions are achieved.

The remainder of the paper studies the mechanisms for spending reductions. One argument for HDHP plans is that, given appropriate financial incentives, consumers will price shop, i.e. search for cheaper providers offering a given service without compromising much on quality [see, e.g., Lieber (2015), Whaley (2015) and Bundorf (2012)].[9] In turn, providers may lower prices to reflect increasing consumer price sensitivity. Advocates argue that, over time, complementary innovations will aid the price shopping process, by making in- network search for specific providers, and specific service prices more transparent. In our setting consumers were provided a comprehensive price shopping tool that allowed them to search for doctors providing particular services by price as well as other features (e.g. location). Whether or not price shopping actually occurs is an empirical question that depends upon a range of factors, including consumers' provider preferences, information about prices, and search effort.[10]

Given the extent of price shopping, consumer quantity reductions can be viewed as positive or negative from a welfare standpoint, depending on how those reductions are achieved. A model with rational and fully-informed consumers predicts that all quantity reductions are welfare improving, since consumers would value the foregone care at less than the total cost. Conversely, if consumers lack information or face other constraints, they may reduce valuable services as well as wasteful services potentially leading to a net welfare loss.[11] Recent work by Baicker et al. (2013) sets up a theoretical framework for analyzing inefficient consumer reductions in care, with corresponding

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[8]We assess health status in an ex ante predictive sense using the Johns Hopkins ACG software, which integrates medical diagnoses and health spending data to predict medical spending in a sophisticated manner.

[9]See, e.g., `http://www.wsj.com/articles/SB113011622503277210` for an example of the value potential of high-deductible plans.

[10]In this context, recent work by Lieber (2015) and Whaley (2015) finds that most consumers do not actively engage with price shopping platforms similar to the current state-of-the-art but that those who do substitute to cheaper providers for the services they search for. The price shopping tools they study are similar to those implemented at the firm we study: in a mid-2013 survey, we find that approximately 40% of consumers have heard of the price shopping tool, 15% have logged in at least once, and 7% characterize themselves as active users.

[11]There are many recent media articles to this effect. See, e.g., `http://www.nytimes.com/2015/05/05/upshot/with-sickest-patients-cost-sharing-comes-at-a-price.html`

empirical examples, while Chandra et al. (2008) study an empirical case where consumers' reduction in current spending as a result of higher cost-sharing lead to increased future hospitalizations.

In this paper, we investigate these aspects of consumer behavior by leveraging the granular data on medical procedures and patient-provider relationships together with the forced consumers switch from free to high-deductible health care. We perform our analysis in the spirit of Oaxaca (1973) and Blinder (1973), and decompose the total reduction in medical spending into (i) price shopping for cheaper providers (ii) outright quantity reductions and (iii) quantity substitutions to lower-cost procedures. As part of this decomposition, we also assess and control for supply-side price responses. In this decomposition, our price shopping measure accounts for *within-procedure* shifts down the distribution of prices, while our quantity substitution measures accounts for shifts across types of procedures, given the outright quantity reductions that occur. To our knowledge, this is the first study able to separately identify these effects with this kind of natural experiment and granular data.

We find no evidence of price shopping in the first year post switch. The effect is near zero and looks similar for 2012-2013 (moving from pre- to post-change) as it does for earlier year pairs from 2009-2012. Second, we find no evidence of an increase in price shopping in the second year post-switch; consumers are not learning to shop based on price. Third, we find that essentially all spending reductions from 2012-2013 are achieved through outright quantity reductions whereby consumer receive less medical care. From 2012 to 2013 consumers reduce service quantities by 17.9%. Fourth, there is limited evidence that consumers substitute across types of procedures (substitution leads to a 2.2% spending reduction from 2012-2013). Finally, fifth, we find that these quantity reductions persist in the second-year post switch, as the increase in quantities from 2013-2014 is only 0.7%, much lower than the pre-period trend in quantity growth. These results occur in the context of consistent (and low) provider price changes over the whole sample period.

It is clear that consumer quantity reductions are the key to total spending reductions in our setting. We next investigate service-specific reductions to shed more light on the types of care consumers are foregoing. To this end, we perform our decomposition for each of the top 30 procedures by revenue across each two-year pair. The results are striking. We find that for 2010-2011, 2011-2012, and 2013-2014 between 22-24 of the top 30 procedures have quantity increases. For 2012-2013 when the change occurs, only 5 have quantity increases. This suggests that consumers reduce quantities across the board rather than targeting specific kinds of services. We drill down further into the types of procedures consumers economize on. We find, e.g., that consumers reduce quantities of valuable preventive care, with reductions of approximately 10% for 2013 and 2014 relative to 2012 (a marked departure from earlier upward quantity trends). Specifically, for example, consumers reduce colonoscopies by 31.6% and care that is considered preventive with a prior diagnosis (e.g. diabetes) by 12.2%. We also investigate services that many consider potentially wasteful. When we perform this decomposition for imaging services (e.g. MRI, CT Scan) we find that consumers reduce quantities by 17.7% from 2012-2013, relative to increases between 3.5% and 13.5% from 2009-2012. We also find no evidence for price shopping for imaging services, despite the relative homogeneity of the service. Finally, we note that our overall pattern also holds true

specifically for the sickest quartile of consumers ex ante, who reduce quantities by 20% but show little price shopping.

These findings help motivate the last major part of our analysis, which seeks to better understand exactly why consumers who are predictably sick reduce spending during the year, despite the fact that their true shadow price (i.e. expected end-of-year marginal price) of care should be close to zero. With a rational, forward-looking model, the price consumers should consider is this true shadow price, equal to the price they should expect to pay for care on the margin at the end of the contract year. However, a range of recent evidence across different contexts with non-linear contracts suggests that consumers often respond to simpler to understand prices such as *spot prices*, the price consumers pay for care on the spot, or their prior end-of-year marginal price.[12] If consumers respond to their spot prices, which are always weakly higher than their true shadow prices of care throughout the year, then they will under-consume care relative to what a fully rational dynamically optimizing consumer would do.

Our data and setting provides a unique opportunity to understand how consumers respond to non-linear contracts because we observe a large population of consumers who are forced to move from completely free health care, with no non-linearities, to the non-linear high-deductible contract. This implies that we observe these consumers transition from a "dynamics free" price environment to one with complex price signals typical of non-linear contracts. We perform descriptive and regression analyses that shed light on which contract price signals consumers are responding to, under the two assumptions (i) that the cross-sectional distribution of consumer health status is the same across the years in our sample and (ii) that the mapping between year-to-date health spending and health status is monotonic.[13]

We model reduced consumer spending in 2013 and 2014 as a function of high-deductible contract price signals, and study how incremental consumer spending at different points in the calendar year changes relative to pre-period incremental spending for consumers with the same health status, under free care. We match consumers in the post-period and pre-period on health status using a quantile-based approach that conditions on ex ante health status, demographics, and year-to-date spending. For example, if we want to study incremental spending for people under the deductible for the month of February, and 62% of consumers for a given demographic / health status combination are under the the deductible at the start of that month, we compare the distribution of incremental spending for those consumers to the distribution of spending for the lowest spending

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[12]Einav et al. (2013a), Dalton et al. (2015) and Abaluck et al. (2015) show that consumers respond heavily to spot prices before and after passing the "donut hole" in Medicare Part D prescription drug coverage, while Aron-Dine et al. (2012) studies related questions in a large employer health setting similar to our own. Ito (2014) shows that consumers are more likely to respond to average prices, rather than marginal prices, in non-linear electricity tariffs, Nevo et al. (2015) shows that consumers exhibit some forward looking behavior in non-linear broadband contracts, and Grubb and Osborne (2015) shows that consumers exhibit a range of biases in how they respond to non-linear cellular phone contracts. Liebman and Zeckhauser (2004) discuss some micro-foundations for why consumers have difficulty dealing with non-linear tariff complexity, including information constraints and transaction costs.

[13]One key reason the first assumption could be violated is if, in the course of spending less at the beginning of 2013, consumers become sicker later in that year (or the next year) relative to the same time in earlier years. We discuss how, if such "offsets" occur [see, e.g., Chandra et al. (2008) and Gaynor et al. (2007)], they would bias against our primary findings. We also provide some evidence that such "offsets" are unlikely to be large within the two post-period years we study.

62% of consumers in that cell in a pre-period year, e.g. 2011 (adjusted for time trends). Both our descriptive and regression analyses are similar in spirit to treatment effect quantile regressions.

We model three high-deductible contract price signals: (i) the spot price, or price paid when seeking care (ii) a consumer's end-of-year marginal price from the prior year and (iii) a consumer's true shadow price of care, i.e. their expected end-of-year marginal price.[14] We model the true shadow price of care using a detailed cell-based approach that conditions on year-to-date spending and predictive measures of future spending from the Johns Hopkins ACG program, which leverages specific diagnoses and procedures in its predictions. We deal with potential reverse causality in constructing 2013 and 2014 shadow prices by constructing prices for comparable consumers in 2010 and using those as instruments for the shadow prices consumers face in the post-period.

Our descriptive analysis investigates (i) incremental monthly spending and (ii) incremental rest-of-year spending for consumers starting at a given calendar year month in a given arm of the non-linear high-deductible contract. Our key findings are clear: throughout the calendar year in high-deductible care, consumers *do not reduce* incremental spending relative to pre-period years when they begin a month in the coinsurance arm or above the out-of-pocket maximum. In fact, incremental spending in 2013 and 2014 almost exactly mimics pre-period incremental spending for these consumers, suggesting that once they reach this phase of the contract they perceive prices close to zero (or are not price sensitive).

Strikingly, we find that essentially all incremental spending reductions in high-deductible care are achieved in months where consumers began those months under the deductible (90% or larger in 2013 and 2014). When we condition on consumers' true shadow prices, we continue to find that consumers substantially reduce spending when under the deductible. For example, 25% of all spending reductions come from the sickest quartile of consumers conditional on being under the deductible, and 49% from the sickest two quartiles of consumers. This is true even though throughout the year, the sickest quartile of consumers can expect to pass the deductible with near certainty, and, for some cases, pass the out-of-pocket maximum. These consumers no longer reduce incremental spending once they actually hit the coinsurance arm. We find no evidence that consumers learn to respond to their shadow price relative to their spot price in the second-year post-switch, 2014 (similar to results found in Medicare Part D).

We bring these pieces together in a regression analysis that, in addition to controlling for our three price measures, also controls for spending persistence, demographics, and health status in a granular manner. We find results the mirror our descriptive analysis: consumers reduce spending under the deductible by 42.2%, conditional on other price measures, relative to similar consumers in pre-period years, and show substantially lower responses to their true shadow prices and last year's implied end-of-year marginal price. For example, consumers in the second, third, and fourth quartiles of shadow prices reduce spending by approximately 6% relative to both similar consumers in the pre-period and those in the lowest shadow price quintile. While we find no evidence that consumers respond more heavily to shadow prices, or less heavily to spot prices, in the second

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[14]For consumers in 2013, we model their prior year end-of-year implied marginal price as what their high-deductible marginal price would have been if they spent exactly what they spent in 2012.

year post-switch, we do find evidence that consumers more heavily respond to their 2013 actual end-of-year marginal price in 2014. Conditional on all other prices and variables, consumers in 2014 reduce spending by 10% if they ended 2013 under the deductible, relative to what similar consumers would have done in 2013 based on 2012 total spending. This suggests that consumers may learn to respond to their end-of-year prices, but may form projections based on what happened in the previous year, rather than forming new expectations for the current year.

Taken in sum, our results suggest that consumers reduce total spending and do so by reducing the quantity of care consumed across a range of services. They do so only when under the deductible in the calendar year, even when they should be able to predict that they will have a very low end-of-year marginal price. These results suggest that the typical structure of health insurance contracts, with decreasing marginal prices throughout the year, helps reduce total spending relative to alternative designs, e.g. that in Medicare Part D. However, the results also suggest that these spending reductions may be achieved in a blunt manner, where consumers reduce all types of care, including both valuable and wasteful care.

The rest of the paper proceeds as follows. Section 2 describes our empirical setting and the data we use to conduct our analysis. Section 3 presents our aggregated treatment effect analysis of the medical spending response to the introduction of the high-deductible plan, and describes those treatment effects for heterogeneous consumers and across medical service types. Section 4 presents our decomposition of these treatment effects into (i) consumer price shopping (ii) consumer quantity reductions and (iii) consumer quantity substitutions and investigates this decomposition for a range of services and consumer types. Section 5 presents our analysis of consumers responding to different prices in the context of the non-linear high-deductible contract, and Section 6 concludes.

2   Data and Setting

We analyze administrative data for a large self-insured firm with approximately 56,000 U.S. employees (as of 2013), covering approximately 160,000 lives. We observe these employees over the time period from 2009 to 2014. Our dataset includes three major components. First, we observe each individual's enrollment in a health insurance plan for each month over the course of these years, including their choice of plan and level of coverage. Second, we observe the universe of line-item health care claims incurred by all employees and their dependents, including the total payment made both by the insurer and the employee as well as detailed codes indicating the diagnosis, procedure, and service location associated with the claim. In the course of our analysis, we use these detailed medical data together with the Johns Hopkins ACG software to measure predicted health status for the upcoming year.[15] Finally, we observe rich demographic data, encompassing not only standard demographics such as age and gender, but also detailed job characteristics and income, as

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[15]This score reflects the type of diagnoses that an individual had in the past year, along with their age and gender, rather than relying on past expenditures alone. See e.g. Handel (2013), Handel and Kolstad (2015) or Carlin and Town (2009) for a more in depth explanation of predictive ACG measures and their use in economics research. See http://acg.jhsph.org/index.php/the-acg-system-advantage/predictive-models for further technical details on these predictive algorithms.

well as the employee's participation in and contributions to health savings accounts (HSA), flexible spending accounts (FSA), and 401k savings vehicles. These data are similar in content to other detailed data sets used recently in the health insurance literature, such as those in, e.g., Einav et al. (2010),Einav et al. (2013b), Handel (2013), or Carlin and Town (2009). The data we use here have a particular advantage for studying moral hazard in health care utilization due to a policy change that occurred during our sample period, which we discuss in detail below.

The first column of Table 1 presents summary statistics for the entire sample of 52, 445 employees (and 147, 388 dependents) present at the firm in 2012.[16] The employee population at this firm is heavily male (76.6%) though a more representative 51.2% of all individuals who we observe (employees and dependents) are male. The employees at the firm are high income (61.5% ≥ $125,000 per year) relative to the general population. The employees are relatively young (12.0% ≤ 29 years, 83.2% between 30 and 54), though we have substantial coverage of the age range 0-65 once dependents are taken into account. 23.5% of employees have insurance that only covers themselves, 20.0% cover one dependent and 56.5% cover two or more. Mean total medical expenditures (including payments by the insurer and the employee) for an individual in the plan (an employee or their dependent) were $5,020 in 2012. While the sample of employees and dependents differs from the U.S. population as a whole, it is at least partially representative of other large firms nationwide, many of which are in the process of transitioning their health benefits programs in similar manners (see Towers Watson (2014)). Moreover, given the high income of employees at the firm, it is quite likely that our results can be interpreted as lower bounds on the utilization impact of cost sharing relative to a lower income population.

Policy Change. From 2009 through 2012, employees at the firm had two primary insurance options. Table 2 lists features of the two plans, side by side. The first was a popular broad network PPO plan with unusually generous first-dollar coverage. This plan had no up front premium and no employee cost-sharing for in-network medical services. The second primary option was a high-deductible health plan (HDHP) with the same broad network of providers and same covered services as the PPO. Enrollees in this plan face cost-sharing for medical expenditures, with a deductible, coinsurance arm, and out-of-pocket maximum typical of more generous high-deductible health plans (in 2013, this plan paid 78.1% of ex post total medical expenditures at the firm). Despite higher cost sharing, this plan was potentially attractive relative to the PPO because it offered a substantial subsidy to enrollees that was directly deposited into their health savings account that was directly linked to the HDHP. As shown in table 1, in 2012 85.2% of employees (corresponding to 94.3% of firm-wide medical spending) chose the PPO with the remainder choosing the HDHP. Consumer choice between these two plan options is discussed in depth in Handel and Kolstad (2015). For this paper, it is only important to note that the large majority of employees were enrolled in

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[16]These numbers only count employees enrolled in the PPO or HDHP insurance plans, the primary options for all employees in 2012. It does not include employees enrolled in an HMO option available to some employees in select locations. It also does not include employees who otherwise did not have access to the same menu of plans (e.g., because they were part-time employees). The number of employees in these two categories is roughly 3,000 (5% of all employees), and is stable over time.

Sample Demographics

	PPO or HDHP in 2012	PPO in 2012	Primary Sample
N - Employees	52,445	44,711	22,719
N - Emp. & Dep.	147,388	129,183	76,759
Enrollment in PPO in 2012	85.21%	100%	100%
Gender - Employees (% Male)	76.6%	76.0%	77.3%
Gender - Emp. & Dep.	51.9%	51.5%	51.4%
Age, 2012 - Employees			
18-29	12.0%	10.3%	4.3%
30-54	83.2%	84.8%	91.4%
≥ 55	4.8%	4.9%	4.3%
Age, 2012 - Emp.& Dep.			
< 18	34.5%	35.3%	36.1%
18-29	12.3%	11.5%	8.8%
30-54	50.1%	50.1%	52.0%
≥ 55	3.1%	3.1%	2.8%
Income, 2012			
Tier 1 (< $75K)	1.8%	1.8%	2.0%
Tier 2 ($75K-$100K)	6.6%	6.4%	5.3%
Tier 3 ($100K-$125K)	30.1%	29.8%	28.5%
Tier 4 ($125K-$150K)	34.9%	35.1%	36.2%
Tier 5 ($150K-$175K)	15.5%	15.6%	15.9%
Tier 6 ($175K-$200K)	6.3%	6.4%	6.7%
Tier 7 ($200K-$225K)	2.8%	2.8%	2.8%
Tier 8 ($225K-$250K)	1.0%	1.0%	0.9%
Tier 9 (> $250K)	1.1%	1.1%	1.0%
Family Size, 2012			
1	23.7%	21.4%	16.1%
2	19.6%	19.1%	17.9%
3+	56.7%	59.5%	65.9%
Individual Spending, 2012			
Mean	$5,020	$5,401	$5,223
25th Percentile	$609	$687	$631
Median	$1,678	$1,869	$1,795
75th Percentile	$4,601	$5,036	$4,827
95th Percentile	$18,256	$19,367	$18,810
99th Percentile	$49,803	$52,872	$52,360

Table 1: This table presents summary demographic statistics for (i) employees enrolled in the PPO or HDHP plan options at the firm in 2012; (ii) employees enrolled in the PPO plan option at the firm in 2012; and (iii) our final sample, which is restricted to employees present over the time horizon 2009-2014, and their dependents. This sample is described in depth in the text. When relevant, statistics for the primary sample are presented for the year 2012. Appendix A replicates our key statistics for an alternative primary sample.

Health Plan Characteristics
Family Tier

	PPO	HDHP
Premium	$0	$0
Health Savings Account (HSA)	No	Yes
HSA Subsidy	-	$3,750*
Max. HSA Contribution	-	$6,250**
Deductible	$0***	$3,750*
Coinsurance (IN)	0%	10%
Coinsurance (OUT)	20%	30%
Out-of-Pocket Max.	$0***	$6,250*

*Values for family coverage tier (2+ dependents). Single employees (those with one dependent) have .4× (.8×) the values given in this table.

**Single employees have a legal maximum contribution of $3,100. Employees over 55 can contribute an extra $1,000 in 'catch-up' contribution. This includes the employer subsidy.

***For out-of-network spending, the PPO has a deductible of $100 per person (up to $300) and an out-of-pocket maximum of $400 per person (up to $1200).

Table 2: This table presents key characteristics of the two primary plans offered over time at the firm we study. The PPO option has more comprehensive risk coverage while the HDHP option gives a lump sum payment to employees up front but has a lower degree of risk protection. The numbers in the main table are presented for the family tier (the majority of employees) though we also note the levels for single employees and couples below the main table. Both plan options were present at the firm from 2009-2012, but the PPO option was removed in 2013, forcing employees to join the HDHP in that year. HDHP characteristics remained the same throughout the study period.

the PPO prior to the forced plan switch that occurred at the firm for 2013.

In October 2010, the firm announced to its employees that it would discontinue the PPO option as of 2013. This forced the vast majority of employees and dependents, who were still enrolled in the PPO in 2012, to switch to the HDHP option for 2013. For these employees, this policy change represented a substantial and exogenous change to the marginal prices they faced for health care services. Moreover, because of the PPO plan structure, the employees that were forced to switch into the HDHP had a zero marginal price for medical care prior to the switch, implying that we observe true cost-free demand for health care services as our baseline.

Table 3 presents statistics related to the cost-sharing change faced by the 76,759 employees and dependents in our primary sample (described below) forced to move into the HDHP in 2013. We take the spending of all PPO enrollees in 2012, and assume that they had instead been enrolled in the HDHP in that year. We then determine what arm of the plan they would have ended up in and what proportion of medical spending they would have paid for. This simple counterfactual is intended to illustrate the price change from the forced switch: these statistics will change somewhat as we go through our analysis and account for consumer price sensitivity.[17] Employees and

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[17]Here, and throughout the paper, our analysis takes into account the fact that preventive services are always free under the HDHP. Such spending accounts for 9.50% of total medical spending in 2012.

| | Avg. HDHP | % Under | % Over Ded., | % Over OOP | Actuarial |
Coverage Tier	Price	Deductible	Under OOP Max.	Max.	Value
Policy Change: Price Impact					
2012 Total Spending					
0 Dependents	0.428	37.92% ($< \$1{,}500$)	49.16% (\$1,500 - \$11,500)	12.92% ($> \$11{,}500$)	78.31%
1 Dependent	0.293	23.22% ($< \$3{,}000$)	61.08% (\$3,000 - \$23,000)	15.70% ($> \$23{,}000$)	76.59%
2+ Dependents	0.201	13.30% ($< \$3{,}750$)	68.40% (\$3,750 - \$28,750)	18.30% ($> \$28{,}750$)	78.24%
All Tiers	0.249	18.42%	64.46%	17.12%	78.05%

Table 3: This table presents statistics for our primary sample describing the average and marginal price changes resulting from the forced HDHP switch. We take employees'2012 health care spending and calculate the amount that they would have paid out-of-pocket if they spent the same amount while enrolled in the HDHP. We present the average % of total spending paid, as well as the likelihood of reaching each arm of the non-linear HDHP contract. Below each percentage is the range of allowed expenditures required to be in that arm of the insurance plan for that tier of coverage, if the employee only received care in-network (typical for most employees).

dependents paid 0% of all in-network expenses under the PPO, while under the HDHP, the overall population would have paid for 21.95% of these total expenses (implying a plan actuarial value of 78.05%). Table 3 breaks down the change in consumer prices by coverage tier, and illustrates the end-of-year marginal price that they face by showing which arm of the non-linear contract they would have reached by the end of the year. 18.42% of employees would have been under the HDHP deductible based on 2012 spending, 64.46% would have passed the deductible but not reached the out-of-pocket maximum, and 17.12% would have reached the out-of-pocket maximum. Those not passing the deductible would have faced the full marginal price of care at the end of the year, those who passed the deductible but not the out-of-pocket maximum a marginal price of 10%, and those who passed the out-of-pocket maximum a marginal price of zero. This simple evidence illustrates the substantial average and marginal price changes for employees from 2012 to 2013 due to the firm's insurance benefits redesign.[18] The forced shift from completely free care to the HDHP also presents a natural experiment that introduces within-year price dynamics. We explore the nuances of how employees respond to these different potential perceived prices in Section 5.

Primary Sample. For the majority of our forthcoming analysis, we use the sample of employees who (i) were present at the firm for the whole sample period, 2009-2014 and (ii) were enrolled in the PPO prior to the forced switch in 2012. We use this sample to ensure that we have a substantial time series of information on the health status of employees we analyze. Column 3 of Table 1 shows the summary statistics for this primary sample, which can be compared to the full sample

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[18]We note that, with reductions in total medical expenditures in the HDHP due to a positive price elasticity of demand, the marginal prices consumers actually faced in 2013 are slightly larger than the numbers given here.

of employees present in 2012 presented in Column 1. There are 22,719 employees in the primary sample covering 76,759 dependents (approximately 52% of employees and dependents present in the 2012 full sample in Column 1). Relative to all employees present, primary sample employees have similar distributions of age and gender, are slightly higher income, and cover slightly more dependents. Taking employees and dependents together, the primary sample and entire firm have similar distributions of age and gender, while those in the primary sample have about 4% higher medical spending on average. For robustness, in Appendix A we present summary statistics and some of our core results for an alternative sample that includes all employees and dependents present from 2011-2013 and who are in the PPO for 2011 and 2012. Our main results are essentially unchanged for this alternative sample.

Figure 1 examines whether there is substantial incremental attrition from the firm after the announcement of the switch to the HDHP (in late 2010) or after the actual forced switch to that plan in 2013. If such attrition occurred, it would cause concern that our primary sample did not represent a sample that was exogenously exposed to the high-deductible plan and was instead a selected sample of consumers willing to stay at the firm and enroll in the high-deductible plan. Reassuringly, the figure shows that there is no meaningful change in employee exit either around the announcement date for the plan switch (October 2010), after the implementation date (January 2013), or at any point in between. There is some incremental dependent attrition at the implementation date (about 1 percentage points higher than baseline), but not enough to meaningfully impact our main results. 4% of employees and dependents were laid off from the firm in October, 2014: the analysis for our 2011-2013 sample in Appendix A shows that this does not impact our primary results by selecting out a specific subset of consumers. Appendix A includes additional charts showing both (i) that employees and dependents who exit around the implementation date are not sicker than average and (ii) that employee and dependent entry is also not related to key transition dates.

3   Impact of Cost-Sharing on Spending

We first investigate the impact of the the forced switch of consumers to the high-deductible plan on total medical spending. We present a series of analyses for our primary sample, beginning with a description of the raw data and ending with a complete analysis that is intended to reflect a causal impact of the contract change.

Figure 2 plots mean monthly spending at the individual level for our primary sample over the time period 2009-2014 (Figure A12 in Appendix A.8 plots median spending over time to remove the effects of very high cost consumers). The vertical line in the figure represents the beginning of 2013. The figure clearly illustrates that spending drops after the forced switch to the HDHP: the average yearly spending for an individual dropped from \$5222.60 in 2012 to \$4446.08 in 2013. This constituted a year on year 14.87% drop in spending in the raw data, effectively returning nominal spending to just below 2009 spending levels for this sample. Table 4 presents the year-on-year mean total spending changes for the primary sample in the raw data from 2009-2014, while Table
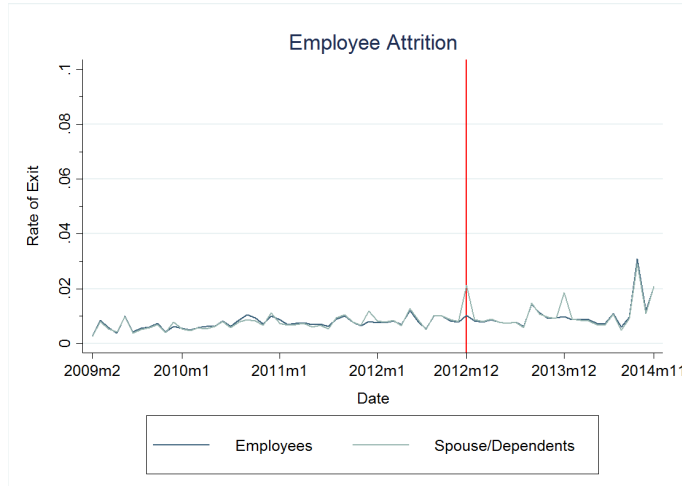
Figure 1: This figure plots employee and dependent attrition from the firm over time. It presents the monthly exit hazard rate separately for employees and for spouses / dependents. It shows that there is no meaningful change in employee exit either around the announcement date for the plan switch (October 2010) or the implementation date (January 2013). There is some incremental dependent attrition at the implementation date, but not enough to meaningfully impact our main results.
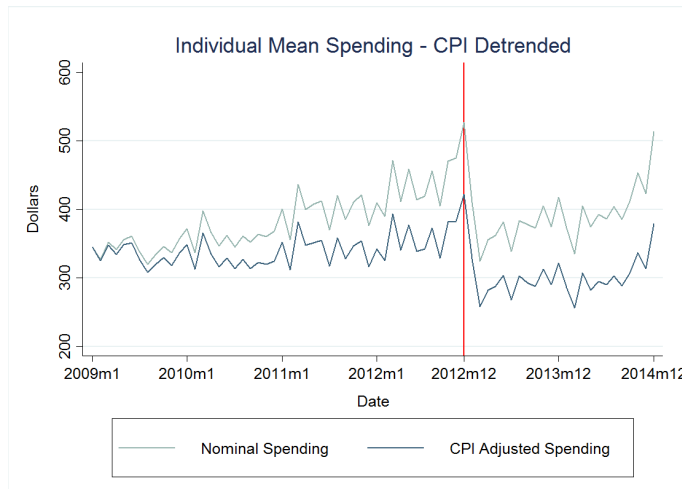
Figure 2: This figure plots mean monthly spending by individuals in our primary sample from 2009-2014, both adjusted and unadjusted for age and price trends.

A11 in the Appendix presents mean monthly spending values for select months across these years, illustrating that this drop in spending occurs consistently throughout the calendar year.

As is typical in health care, the raw spending data shows total medical spending increasing steadily over time. We attribute this to two factors in our environment. First, our primary sample is a balanced panel where consumers age over the six year period. Second, the price of care typically rises over time due to both price inflation and other factors such as the introduction of new medical technologies. If we fail to account for these factors, we will understate the causal impact of the forced HDHP switch on medical spending because 2013 spending will be mechanically larger than 2012 spending.

Figure 2 also shows the raw spending data adjusted for in-sample aging over time and for medical price inflation. To adjust spending for age, we take monthly individual-level spending for January 2009 and regress it on age and a number of other controls. Within our sample, mean monthly spending increases by $7.50 for each year someone ages. This provides an estimate of the increase in spending that comes about from aging one year in our sample and indicates a very small effect of aging on the 2012-2013 treatment effect estimates.[19] Additionally, we adjust for medical price inflation using the Consumer Price Index (CPI) for medical care for each month in our sample.[20] This index adjusts for price inflation, but not price increases from technological change, and as a result we may slightly understate the impact of the forced switch to the HDHP on spending reductions. We note also that in this section we intentionally use this broader price inflation index so that any equilibrium price effects as a result of the forced HDHP switch are still accounted for in our treatment effect estimates, an issue we return to in Section 4. [21]

In Figure 2 we apply both the within-sample aging and medical price inflation adjustments to the raw data. We express the adjusted spending values in January 2009 dollars, i.e. in terms of 2009 ages and medical prices. The figure clearly illustrates the drop in average monthly individual spending following the forced HDHP switch. The numbers in Table 4 show that, once these adjustments are accounted for, average individual spending drops by 19.36% from 2012 to 2013 as individuals are forced to move from free health care to the HDHP. It is important to note that adjusted spending drops by 15.86% comparing 2012 to 2014, implying that the impact of high-deductible insurance on medical spending persists for both years post-switch.

Anticipatory Spending. While it is clear from Figure 2 that aggregate spending decreases when the HDHP is introduced in 2013, it is also apparent that consumer spending ramps up at the end of 2012 in anticipation of the forced plan shift. As discussed in Section 2, the 2013 HDHP switch was first announced in October 2010 with many regular subsequent related announcements leading up to the actual change in 2013. As a result, the plan switch was a well known and salient event throughout 2012, leading to anticipatory spending by consumers before the switch actually occurred, when health care spending was cheaper. This kind of anticipatory spending is clearly documented in Einav et al. (2013a) in the context of Medicare Part D prescription drug insurance and Cabral (2013) in the context of dental insurance.

In our context, quantifying the extent of anticipatory spending is important for obtaining a causal impact of the forced HDHP shift. Without understanding the extent of such spending our estimates would overstate the true impact of the increase in cost sharing on medical spending since some of the spending that would have occurred in a normal HDHP year would have been shifted to the end of 2012. To that end, we perform a regression analysis using monthly spending data at

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[19]One would normally expect a nonlinear relationship between age and health spending that is flatter at younger ages and steeper at older ages. The relative youthfulness of our sample (see table 1) is a key reason for the low estimated impact of aging here. Using nonlinear specifications gives similar results.

[20]This comes from the index collected by the Bureau of Labor Statistics. A time series of this index can be found at `http://research.stlouisfed.org/fred2/series/CPIMEDNS`. A description on how this is collected can be found at `http://www.bls.gov/cpi/cpifact4.htm`.

[21]To foreshadow, we find values similar in magnitude to the CPI adjustments we use here.

HDHP Switch Spending Impact			Model	
	(1)	(2)	(3)	(4)
	–	CPI &	Intertemp.	Early Switcher
Year		Age Adj.	Substitution	Diff-in-Diff
2009	4,031.49	3,910.87	3,910.87	–
2010	4,256.21	3,858.78	3,858.78	–
2011	4,722.03	4,055.01	4,051.01	–
2012	5,222.60	4,277.84	4,112.61	–
2013	4,446.08	3,490.97	[3,490.97 , 3,656.20]	–
2014	4,799.14	3,599.25	3,599.25	–
% Decrease				
2012-2013	-14.87%	-18.39%	[-11.09%, -15.12%]	[-20.17%, -20.93%]
2012-2014	-8.01%	-15.86%	-12.48%	–
$ Mean Yearly Impact of HDHP Switch (million)	-84.66	-126.76	[-87.24, -102.12]	–
Semi-Arc Elasticity*	-0.57	-0.85	[-0.59,-0.69]	[-1.04,-1.08]

*Column 1-3 elasticities average 2012-2013 and 2012-2014 estimated effects
Column 4 elasticity for 2012-2013 only

Table 4: This table details the treatment effect of the forced HDHP switch under different frameworks: (i) nominal spending (ii) age and CPI adjusted spending (iii) causal estimates with anticipatory spending (age and CPI adjusted) and (iv) causal estimates from the early switcher matched difference-in-differences approach. Under each framework we display the predicted values for mean yearly individual spending, for each year as well as the predicted % change in this spending as a result of the forced HDHP switch from 2012-2013 and from 2012-2014. We present the mean yearly amount saved from the switch in the two years post switch (2013-2014) as well as the implied semi-arc elasticity of the switch comparing 2012 to the two post years, as described in the text.

the population level to quantify excess spending in the second half of the year 2012.[22] We estimate the following specification to predict mean monthly spending:

$$\bar{y}_t = \alpha + \beta t + \lambda_m + \bar{\epsilon}_t$$

We estimate the regression on data from January 2009 to December 2011, well in advance of the HDHP switch. t denotes one of the specific 36 months over this timeframe, while m denotes a given month in the calendar year. $\bar{y}_t$ is mean individual-level spending in our primary sample at the firm in a given month t, β is a linear time trend to account for inflation and aging, λ_m is a calendar month fixed effect to adjust for seasonality, and $\bar{\epsilon}$ is the population level idiosyncratic monthly shock to mean spending.

[22]It is also possible that some anticipatory spending occurs prior to the second half of 2012. Such spending is highly unlikely to matter for our analysis, since consumers would have to be substituting medical care over six months forward. We note that though there is a spike in March 2012 mean spending in the pre-period, this is attributable to several concurrent very high cost consumers. Figures 3 in the text and A12 in Appendix A clearly illustrate that claim counts and median monthly spending spike in October-December 2012, but not earlier in 2012.
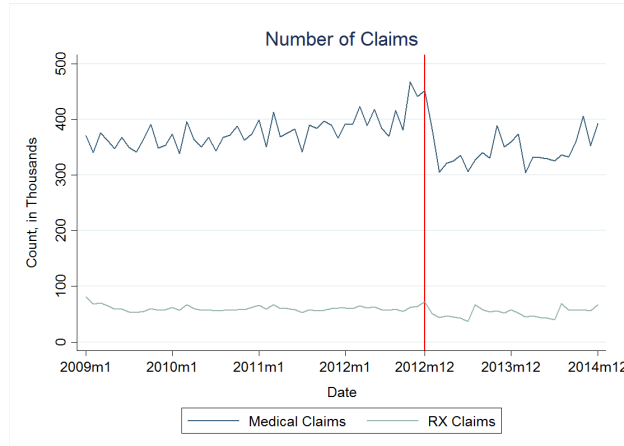
Figure 3: This figure plots total number of monthly claims, both RX and non-RX over time, for our primary sample. It corroborates our regression-based evidence that anticipatory spending occurs primarily in October-December 2012.

We determine which months have meaningful anticipatory spending by looking at the months at the end of 2012 that have $\bar{y}_t$ that is statistically larger than the predicted value $\widehat{\bar{y}_t}$ from the above regression. Appendix A presents this analysis in detail, and clearly shows that there is evidence of excess spending mass in October-December 2012 but not prior. This is corroborated by Figure 3, which shows a clear spike in the number of claims over these three months, but not prior.

We quantify the 'excess mass' in October - December 2012 in order to obtain causal treatment effect estimates for the change in total spending due to the switch to high-deductible health care. We use the results from the above regression (presented in Appendix A) to estimate this excess mass as $\Sigma_{t=10}^{12}[\widehat{\bar{y}_t} - \bar{y}_t]$. Predicted mean excess mass for October is \$37.82, for November is \$41.57, and for December is \$85.83, totaling \$165.23 per individual over this three month period. Assuming no autocorrelation between idiosyncratic shocks to the population mean of health spending over time (apart from anticipatory spending) the 95% confidence interval for excess spending over this three month period is [\$113.96,\$216.50] per individual, equivalent to 2.6% to 5.0% of mean age and CPI adjusted individual spending in 2012. See Appendix A for more details on this computation.

In order to integrate this excess mass estimate into our treatment effect analysis, we need to assess how much of this excess mass would have been spent in 2013 under the HDHP. It is possible that some of the anticipatory spending would not have occurred at all in 2013 once prices were raised and the end of the year in 2012 was the final chance for consumers to consume services of marginal value. Though it seems from Figures 2 and 3 that most of this excess spending would have occurred in January - February 2013 if it occurred at all, it is difficult to credibly estimate 'missing mass' in January-February 2013 with only two years of post data. Consequently, we allow for the percentage of anticipatory spending that would have been spent in 2013 to vary over the entire range of possible values, from 0% to 100%, and use a bounds approach to construct this causal treatment effect. We note that throughout this analysis, we assume that any care substituted back into 2012 came from 2013, and not afterwards. As a result, no adjustments are required for 2014, even if there is cross-year intertemporal substitution for those in the HDHP, as long as population

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spending is in steady state from a yearly basis.

The third column of Table 4 presents our range of estimates for our causal treatment effects that incorporate anticipatory spending. Once anticipatory spending is taken into account, assuming that all such spending would have occurred in 2013, we find that the forced switch to the HDHP in 2013 decreased total spending by between 11.09% and the upper bound of 15.12%, which corresponds to the case where all anticipatory spending would not have otherwise occurred after the forced switch. The difference between this range, and our 19.36% estimate where anticipatory spending is not accounted for, indicates the importance of measuring anticipatory spending when using a pre-post or difference-in-differences design to measure the impact of cost-sharing on health care spending. When 2012 spending adjusted for anticipatory spending is compared to 2014 spending, the estimated impact is a 12.48% spending reduction.

Early Switcher Difference-In-Differences. In addition to our main analysis, which relies on the change over time to identify the effects of the HDHP on spending, we investigate a difference-in-differences approach that uses consumers who switched to the HDHP in years prior to the forced switch as a control group. We consider this to be a robustness check, instead of a primary piece of analysis, because the 'control' group of early switchers actively selected into the HDHP in 2011 and 2012 and were clearly not randomly assigned to that plan. As a result, early switchers are not a true control group and should not be treated as such. We use the entire sample of early switchers present through 2013 for the analysis, and compare their spending over time to a weighted version of our primary sample, where the weighting gives the modified primary sample the same health status distribution (based on ex ante ACG predictive risk scores) as the early switcher sample.

We discuss this approach in more detail in Appendix A.3, and present additional supporting evidence there. The final column in Table 4 presents the primary estimate of a 20.17-20.93% spending reduction as a result of the forced HDHP switch. This is qualitatively similar to our primary causal estimate of 11.02-15.19% (Column 3 in Table 4), indicating the robustness of that primary analysis to the difference-in-differences approach. While this is reassuring, we note that the difference-in-differences analysis explicitly considers a healthier sample than the primary analysis due to the health status distribution of early switchers (and the corresponding matched population in the primary sample), and thus, should not necessarily lead to the same result.

Elasticity Estimates. A typical metric used to compare price sensitivity estimates in medical spending is the arc elasticity of total medical spending with respect to the price consumers face. As discussed in Aron-Dine et al. (2013), describing a non-linear insurance contract by one price is an oversimplification, since consumers face many potential true marginal prices throughout the contract and also face different marginal prices based on their respective health risks. The notion that it is difficult for one price to represent an insurance contract for a population is supported in our Section 5 analysis, which shows that consumers face very different prices throughout the year and that they respond to spot prices instead of true expected marginal prices.

Nevertheless, for comparison purposes, in Table 4 we present the semi-arc elasticity of total

medical spending with respect to price:

$$\frac{2(q_{2013} - q_{2012})/(q_{2013} + q_{2012})}{(p_{2013} - p_{2012})}$$

Here, q_Y is mean individual total medical spending in year Y, and p_Y is the single 'price' of insurance coverage for the population in year Y. We follow the literature here, and take the single price of the HDHP in 2013 to be the proportion of medical spending that consumers in the overall population would have paid for if 2012 medical spending occurred under the HDHP plan design. This is .219 in the primary sample in our setting. The price of the PPO in 2012 is 0 since consumers don't pay anything for health care on the margin in the PPO. We note that while most of the literature uses arc elasticity rather than semi-arc elasticity, when the price change in question starts from zero price, arc elasticity just represents the % quantity change so is not a satisfactory descriptive statistic.[23] The semi-arc elasticity represents the change in quantity, normalized by the baseline quantity, divided by the change in price.[24]

As Table 4 reveals, the semi-arc elasticity for our primary causal treatment effect estimate lies in the range [-0.59, -0.69], averaging over both post-period years, while those from the other approaches in the Table lie between -0.57 and -1.08. These semi-arc elasticities are less than half of those for two of the main estimates cited in the RAND Health Insurance Experiment where consumers are randomized between coverage with (i) 100% and 84% actuarial value or (i) 84% and 69% actuarial value.[25] We use statistics from Keeler and Rolph (1988) to compute RAND semi-arc elasticities of -2.11 and -2.26 respectively for these two scenarios. Though, by this metric, consumers are less price sensitive in our setting, we note that the economic magnitudes of our treatment effect estimates are still substantial (regardless of the elasticity measures / comparison) and that there are many potentially important differences between our setting and the RAND setting.

Heterogeneous Treatment Effects. While it is important to document the impact of the forced switch to high-deductible health care on total medical spending, it is just as crucial to understand how and why consumers are reducing spending. Understanding how and why medical spending is reduced is important both to assess the positive impacts of different policies (e.g. insurance contract regulation, insurance exchange design, physician market regulation) as well as to draw some normative inferences about these policies' impacts. The rich claims data we observe, together with our large sample size, allow us to investigate the heterogeneous impact of the forced HDHP switch in substantial detail. Here, we document these heterogeneous impacts using the methodology developed in this Section, while in the rest of the paper we focus on the mechanisms underlying these

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[23]The arc elasticity in our context would be $\frac{(q_2-q_1)/(q_2+q_1)}{(p_2-p_1)/(p_2+p_1)}$. If p_1 is 0, then the bottom of this fraction always equals 1 and just the quantity change is given, regardless of the magnitude of the price change.

[24]In general, as with the arc-elasticity measure, one might want to normalize the price change as well to reflect differences in scale (e.g. comparing changes of $5 to $10 versus $5000 to $10000). In our setting, this is not an issue because we define price as the share of firm-wide costs that fall on the employee, following past work on moral hazard (see e.g. Manning et al. (1987)). Since this percentage is a relative measure already, this scaling issue does not arise when using the semi-arc elasticity measure.

[25]The 84% actuarial value contract has a 25% coinsurance rate up to an out-of-pocket maximum of $1000 while the 69% actuarial value plan has a 95% coinsurance up to a $1000 out-of-pocket maximum.
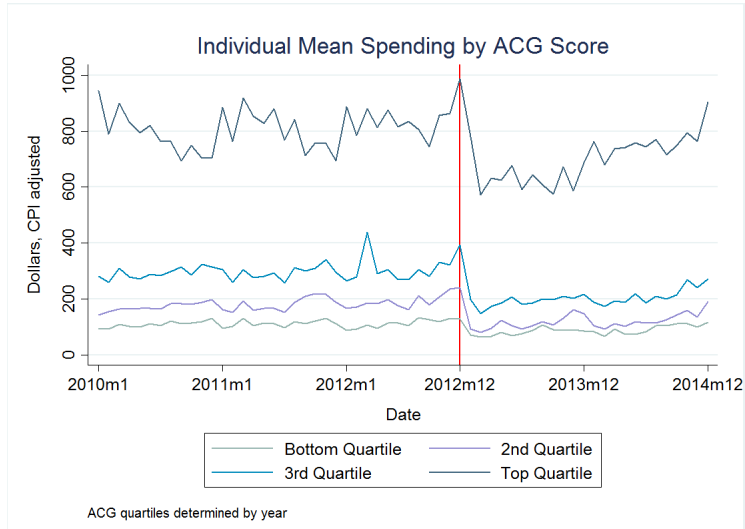
Figure 4: This figure plots adjusted spending for individuals in a given month, by ACG predictive health index quartile (the index is calculated at the beginning of each calendar year).

spending reductions.

Figure 4 investigates the impact of the switch to high-deductible health care as a function of consumer health status. The figure plots spending over time by consumer health status, categorized into quartiles using the ACG predictive index described Section 2. Consumers in the sickest quartile are those who, at the beginning of each calendar year, based on the last year of medical diagnoses and spending, are predicted to spend the most for the upcoming calendar year (while the healthiest quartile are those predicted to spend the least). One key difference between this figure and prior figures in this section is that the sample in each group can switch from year to year: consumers in the top quartile line for 2012 are those predicted to be the sickest for 2012, who might not be the same predicted sickest 25% of consumers for 2013. It is crucial to construct the figure this way (rather than fixing health status at a given point in time) to avoid reversion to the mean that occurs when categorizing health at one point in time.

The figure clearly shows that health spending is reduced for the sickest three quartiles, and that the majority of the spending reductions we document come from the sickest quartile of consumers, predicted on an ex ante basis. This is striking for several reasons. First, as we will document in Section 5, all of the consumers in the sickest quartile are expected to spend well past the deductible in a statistical sense. Given the HDHP contract design, many of these consumers can expect to pass the out-of-pocket maximum and all of these consumers have an expected end-of-year marginal price in between 0 and 10%, the coinsurance rate. This implies that the true price change these consumers should expect to face is quite low.[26] Second, because these consumers are predicted ex ante to be in the sickest group, many of them have chronic medical conditions where medical care may have especially high value. In the next section we explore what services these consumers are actually

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[26]We discuss this more in Section 5. Just because they *should* expect to face low marginal prices doesn't mean they *do* expect to face low marginal prices.

reducing, and show that they reduce consumption of a broad range of medical services, ranging from those that seem elective to those that should not be. Finally, it is important to emphasize that these sick consumers are relatively high-income: as shown in Table 1 median income for just the employee is between $125,000 and $150,000, which is high relative to the family out-of-pocket maximum of $6,250 in the HDHP.

Table 5 presents treatment effect estimates using the methods developed earlier in this section, for different cohorts of consumers categorized by health status. The table presents estimates comparing 2012 spending to 2013 spending for parsimony: 2012 to 2014 comparisons are similar and included in Table A5 in Appendix A.[27] The sickest quartile of individuals, who spend on average $12,335 in 2012, reduce spending by between 18-22% under our treatment effect measures that adjust for aging, the health care CPI, and anticipatory spending. These treatment effects are slightly larger for the ex ante health status quartiles 1 (healthiest), 2, and 3 respectively, though off much lower spending bases.[28] [29] The table also presents these results for consumers categorized by number of documented chronic conditions entering a given calendar year, revealing limited heterogeneity on this dimension. Figure A4 in Appendix A breaks down the spending reductions for quantiles within the sickest quartile of consumers, and shows even the sickest ex ante consumers reduce spending under the HDHP. Figure A5 in Appendix A shows that median monthly spending is also reduced for the sickest quartile of consumers.

Table 5 also documents heterogeneous treatment effects by (i) consumer demographics and (ii) broad categories of medical services (we present more details on medical services in the next section). One notable result is that spending reductions for dependents are limited (12%) and there are no anticipatory spending shifts for this group, suggesting that parents may be less willing to economize on care or shift care for their children. Table 5 also presents these treatment effects broken down by age and employee income.

We break down medical services into eight broad categories for this analysis, with a ninth category that includes all remaining services. One notable result is that spending is reduced across all eight of these broad spending categories, and that the effects have a fairly narrow range of a 6% CPI adjusted reduction (mental health) to a 25% reduction (ER spending). This is somewhat surprising, since some categories seem more elective (e.g. physician office visits, 18% reduction) and others seem less elective (e.g. inpatient, 13% reduction). Notably, consumers reduce spending

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[27]Table A4 in Appendix A also presents in detail the means and standard errors for anticipatory spending across all cohorts / categories in Table 5.

[28]The health status quartile treatment effect analysis fixes the quartiles based on predictive indices for 2012, but allows consumers to switch between those quartiles from one year to the next. This means that the cross-sectional health status quartile populations change over time, but the definition of a quartile in terms of health status remains the same. This is why the % of consumers in each quartile is slightly different than 25%.

[29]We note that the average of these health status quartile treatment effects, weighted by total spending, is slightly larger than the treatment effect presented for the entire population in Table 4. In the raw spending and age/CPI-adjusted only treatment effects, this difference is because the quartiles have slightly different mixtures of health status *within the health status range for the quartile* over the years. For the anticipatory spending adjusted estimates, this difference could also come from the fact that anticipatory spending regressions /adjustments are done separately for each quartile. In Table A6 in Appendix A we present some additional versions of this analysis, intended for robustness, where health status quartiles are defined as true quartiles on a year to year basis, though the ACG index boundaries of each quartile may change .

Heterogeneous HDHP
Spending Impact

	Group %	Spending %	2012 Mean Spending	Treatment Effect (1) Nominal Spending	(2) CPI	(3) Anticipatory Spending
Age 0-17	36.26	24.29	3465.65	-0.07	-0.11	-0.11*
Age 18-29	8.81	7.59	4442.77	-0.15	-0.19	-0.19*
Age 30-54	51.99	62.08	6164.59	-0.19	-0.23	[-0.13,-0.18]
Age 55+	2.92	5.95	11051.14	-0.11	-0.15	[-0.05,-0.11]
Income $0-100K	6.30	6.91	5701.99	-0.03	-0.07	[-0.00, -0.04]
Income $100-150K	63.04	62.98	5209.86	-0.13	-0.17	[-0.08, -0.13]
Income $150-200K	24.93	24.20	5026.86	-0.15	-0.18	[-0.15, -0.17]
Income $200K+	5.73	5.91	5340.94	-0.12	-0.15	[-0.09,-0.12]
Employee	33.47	35.77	5532.76	-0.20	-0.23	[-0.12,-0.18]
Spouse	23.92	35.12	7495.02	-0.16	-0.20	[-0.10,-0.16]
Dependent	42.61	29.11	3570.33	-0.08	-0.12	-0.12*
ACG Quartile 1**	28.51	9.74	1643.56	-0.25	-0.28	-0.28*
ACG Quartile 2**	23.83	12.15	2824.78	-0.39	-0.41	[-0.39,-0.40]
ACG Quartile 3**	23.53	21.45	4564.50	-0.36	-0.38	[-0.33,-0.36]
ACG Quartile 4**	24.13	56.66	12335.85	-0.21	-0.25	[-0.18,-0.22]
ACG Top 1%**	0.79	9.33	66606.47	-0.25	-0.28	-0.28*
0 Chronic Cond.	62.78	38.34	3202.64	-0.15	-0.19	[-0.16,-0.18]
1-2 Chronic Cond.	33.13	47.38	7240.37	-0.18	-0.22	[-0.18, -0.20]
3+ Chronic Cond.	4.19	14.18	19093.34	-0.13	-0.17	[-0.05,-0.12]
Inpatient Hosp.		16.53	863.48	-0.09	-0.13	[-0.07,-0.11]
Outpatient Hosp.		18.07	944.15	-0.13	-0.17	[-0.06,-0.12]
ER		3.11	162.40	-0.21	-0.25	-0.25*
Office Visit		7.61	397.86	-0.15	-0.18	[-0.13,-0.16]
RX		16.91	883.62	-0.16	-0.19	[-0.15,-0.17]
RX - Brand		12.23	638.82	-0.16	-0.20	[-0.16,-0.18]
RX - Generic		4.05	211.62	-0.15	-0.19	[-0.19,-0.19]
Mental Health		9.45	493.86	-0.02	-0.06	-0.06*
Preventive		9.50	496.28	-0.06	-0.10	[-0.05,-0.08]
Other		22.94	1198.07	-0.26	-0.29	[-0.17,-0.24]

*Anticipatory spending estimate negative or not significant from 0

**Quartile definition constant, population shifts across quartiles each year.
   Mixture of health status within quartile bounds differs from year to year.

Table 5: This table summarizes our descriptive evidence for the heterogeneous treatment effects of the forced HDHP switch. For parsimony, the tables presents the estimates from 2012-2013: see the Appendix for the estimates comparing 2012 to 2014. The table presents the results for different (i) demographics (ii) health status measures and (iii) types of health services. The first column reports the % of people within a given demographic group or health status group for categories (i) and (ii), and the % of total spending a given service spending is for category (iii). The second column reports average mean individual yearly spending for categories (i) and (ii), and average mean individual spending for each type of service for category (iii). The second through fourth columns present, for each respective framework, the % change in spending (for each demographic group, or type of service) as a result of the forced HDHP switch from 2012 to 2013.

for both branded drugs (20%) and generic drugs (19%). In addition, spending on services that are classified as preventive is reduced by 10%. This is especially striking since (i) these services are all free to consumers under the HDHP (as mandated under the ACA) and (ii) these are services that may prevent higher spending and poor health in the future.

In Appendix A, we present more detailed description of spending across these categories, including figures specific to each service category (Figures A6 and A7). These treatment effects tell us that total medical spending is reduced across these medical spending categories, but don't tell us enough about how or why spending is reduced. In the next section, we break down these documented spending reductions into (i) reductions from provider price changes (ii) reductions from consumer price shopping and (iii) reductions from consumer quantity reductions. We conduct that analysis in aggregate, but, importantly, also for specific service categories and for specific procedures. In doing so, we are able to dig deeper than the treatment effect measures presented here for total medical spending and better assess exactly how consumers and providers are responding behaviorally to the increase in cost sharing associated with the forced switch to high-deductible health care.

4   Spending Reduction: Decomposition

In the previous section we provided a range of evidence illustrating the impact of increased cost sharing on total medical spending. We showed that the forced switched to the HDHP plan in 2013 causally reduced total medical spending by between 11.79-13.80%. Additionally, we examined the impact of increased cost sharing on different categories of medical spending and different types of consumers. In this section we decompose the overall change in spending from the forced switch to the HDHP into three main effects (i) consumer price shopping (ii) outright quantity reductions and (iii) quantity substitutions to lower-cost procedures. In doing so, we also control for any provider price changes that occur (potentially in response to the large-scale change in insurance).

For this decomposition, we restrict the set of provider-procedure combinations we consider to those that have at least 15 observations over the two years we are studying the medical spending change for. Thus, when examining the total medical spending change from 2012 to 2013 (the year of the forced switch) we only consider provider-procedure combinations that have at least 15 combined observations in the claims data across both of those years. This ensures that we have accurate price data for the services performed, and are using a consistent set of providers and procedures to perform this analysis. These procedure-provider combinations account for 77% of overall spending.

In addition, we focus this analysis on the main region where the company employs people, in order to allow for the possibility that provider price changes could reflect market responses for providers in area where the firm has some monopsony power with respect to providers. The regional restriction reduces the number of employees considered in our analysis to an average of 16,814 (50,219 covered lives) per year, or about 75% of our primary sample.

Framework. We define the factors that we consider so that they are mutually exclusive and exhaustive for explaining the total change in medical spending. We define the *provider price change index* as the average increase in medical prices paid, holding constant the mix and quantity of services consumed. This procedure essentially defines a Laspeyres index for provider price levels:

$$PPI_{t+1,t} = \frac{TS_{t+1,t} - TS_{t,t}}{TS_{t,t}} \tag{1}$$

Here, $TS_{t',t}$ is defined as total spending for period t choices at period t' prices. We define a choice as a choice of a procedure-provider combination, and price as the relevant-procedure-provider price in a given year. Thus, when $t+1 = 2013$ and $t = 2012$, the index measures the increase in spending if the same provider-procedure combinations purchased in 2012 at 2012 prices were purchased at 2013 prices. This provider price inflation index takes into account a number of factors that lead to provider price changes including (i) basic medical price inflation and (ii) providers changing their prices in response to the regime shift to the HDHP.[30] In our upcoming results, we also present $PPI_{m,t+1,t}$, or this provider price index for different specific procedures m. While we are intrinsically interested in price changes, our main focus in measuring the provider price index is to isolate price shopping and quantity reductions.

The second component of our decomposition is the *price shopping effect*, which measures the extent to which consumers substitute to lower price providers conditional on receiving a specific kind of procedure m.[31] To do this, e.g. for 2012-2013, we hold the 2013 distribution of prices for provider-procedure combinations fixed, and examine whether, *for a given procedure*, consumers substituted to differently priced providers in their 2013 choices, relative to their 2012 choices. This decomposition assumes that the ranking of prices across providers within a class of procedures is constant over time, something that we verify is approximately true in Appendix A. In addition, when we perform our aggregated price shopping calculation (the impact across all medical spending) we hold the mix of procedures constant across the set of feasible procedures, so that substitution to or away from certain procedures does not impact our price shopping measure.

Formally, take $\mathbf{P}_{m,Q,t}$ to be the vector of prices for procedure m across the set of providers Q offering that procedure, at year t. Define $\mathbf{C}_{m,Q,t}$ as the vector of provider choices by consumers for procedure m in year t across the feasible set of providers Q. Then, we define the price shopping statistic for procedure m as:

$$PS_{m,t+1,t} = \frac{\mathbf{P}_{m,Q,t+1} \cdot \mathbf{C}_{m,Q,t+1} - \mathbf{P}_{m,Q,t+1} \cdot \mathbf{C}_{m,Q,t}}{\mathbf{P}_{m,Q,t+1} \cdot \mathbf{C}_{m,Q,t}} \tag{2}$$

For procedure m, the price shopping effect tells us, holding prices constant at $t+1$ prices, whether consumers shifted towards cheaper or more expensive providers conditional on doing that procedure.

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[30]Provider prices are typically set through negotiations with the insurer, who typically presents in-network inclusion as a 'take-it-or-leave-it' offer for smaller scale providers. If renegotiations are 'sticky' in the sense that they occur infrequently, our price index may overstate or understate the long-run impact of the HDHP plan on price changes.

[31]We study this question in an environment where consumers had access to a tool that could provide them with price information. Therefore, our setting is less representative of most consumer choice settings but, if anything, we would expect to find more shopping based on prices.

We compute the overall price shopping effect for overall spending by holding the revenue mix of procedures constant across procedures at year t revenue. Specifically, define $Y_{m,t}$ as the total revenue for procedure m in year t and Y_t as total revenue across all procedures in year t. Then, the overall price shopping effect is:

$$PS_{t+1,t} = \Sigma_{m=1}^{M} \frac{Y_{m,t}}{Y_t} PS_{m,t+1,t} \tag{3}$$

The overall price shopping effect tells us the extent to which consumers substitute to higher or lower priced providers from one year to the next year, conditional on doing a specific procedure, summed up across procedures. This statistic incorporates any effect related to the mix of providers patients see for a given procedure moving from one year to the next year. This includes, e.g., consumers shopping for providers with lower prices (as a result of the HDHP switch) or trends whereby consumers are moving over time towards seeing more expensive doctors (e.g. because of shifting preferences).[32]

The third part of the decomposition reflects *quantity changes* by consumers. Our provider price index and price shopping measure reflect how price changes or the mixture of prices chosen for procedures contribute to the total spending reduction documented in the previous section. Our aggregated quantity change measure tells us how much of the change in total medical spending is due to consumers reducing quantities or substituting to different kinds of procedures: we also break down this measure into the medical spending change due to each of these two components.

Here, given that we have already defined the first two parts of this three-part exhaustive and mutually exclusive decomposition, we define the quantity reduction effect as the remaining % of the change in total spending not explained by the first two effects.

To do this, we define the year on year change in total spending as:

$$\Delta TS_{t+1,t} = \frac{\mathbf{P}_{t+1} \cdot \mathbf{C}_{t+1} - \mathbf{P}_t \cdot \mathbf{C}_t}{\mathbf{P}_t \cdot \mathbf{C}_t}$$

Here, $\mathbf{P}_{t+1}$ is the vector of prices across all provider-procedure combinations present in this analysis, and $\mathbf{C}_{t+1}$ is a vector describing the quantity consumed for each procedure-provider combination. $\Delta TS_{t+1,t}$ is thus the change in total medical spending for the set of procedure-provider combinations studied in this analysis. Given this we define the *quantity reduction effect*, which captures the effect of year to year quantity changes on total spending, as:

$$QE_{t+1,t} = \Delta TS_{t+1,t} - PPI_{t+1,t} - PS_{t+1,t} \tag{4}$$

The quantity effect thus equals the change in total spending between two years, netting out provider price inflation and the price shopping effect. We break down the effect of quantity changes into

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[32]We note that our aggregate price shopping statistic is performed *conditional on procedure* and not *conditional on episode of illness*. Thus, our measure incorporates shifting to lower priced providers for a given procedure, but not the impact of shifting to lower priced kinds of procedures for a given episode of illness. We quantify the impact of shifting to lower priced procedures in the quantity change measures we describe momentarily. Of course, when we apply this price shopping measure to a specific procedure, this distinction is immaterial.

that due to quantity reductions and that due to substitution across types of procedures. To do this, we directly define the reduction in quantity of medical services as:

$$Q_{t+1,t} = \frac{Q_{t+1} - Q_t}{Q_t} \tag{5}$$

Here, Q_t is the count of medical procedures/services consumed in year t. If consumers shifted to lower priced procedures as a result of the HDHP plan shift, this would be accounted for by a change in the average price per medical procedure consumed overall. We define the aggregated impact of substitution across procedures on total medical spending as the residual of the quantity change effect not explained by straight quantity reductions:

$$QS_{t+1,t} = QE_{t+1,t} - Q_{t+1,t} \tag{6}$$

We note here that our quantity change measures do not explicitly account for the anticipatory spending documented in the previous section, which reduced our estimate of the total reduction in medical spending by between 4-8%. Figure 3 illustrates that anticipatory spending is associated with quantity changes: such spending is unlikely to impact the provider price index and price shopping statistics presented here. We discuss this in the context of our results.

We now present the results for this decomposition, first for overall total medical spending, and second for specific procedure and diagnostic categories of interest. When we study specific procedures of interest, there is no distinction between $QE_{t+1,t}$ and $Q_{t+1,t}$ (since there is only one procedure involved in the calculation) so we only present on statistic for the impact of quantity changes on medical spending.

Results. Table 6 describes the results of this decomposition for the overall change in medical spending for consecutive years in our data. This table focuses on non-drug spending: we analyze drug spending separately afterwards. We report the results for all pairs of consecutive years from 2009-2014. While our main focus is on the 2012-2013 period when the forced switch to the HDHP occurred (and subsequent 2013-2014 trends), we believe that it is helpful to present the results for the prior years to have a baseline for each effect. The first column presents the year-on-year change in total spending change for our modified primary sample, showing similar results to our Section 3 analysis.

The second column presents the results for $PPI_{t+1,t}$, the provider price inflation index. The table illustrates how this effect is fairly consistent and small across the four pairs of years studied, ranging from 0.2% for 2011-2012 to 3.4% from 2009-2010. The effect for 2012-2013 is 1.7%: as described in the prior section, this could be due to either standard medical price inflation or providers changing prices in response to the introduction of the HDHP. Given the similarity of this effect for 2012-2013 relative to prior years, we can rule out a large provider price change as a result of the forced HDHP, under the presumption of a steady time trend in baseline medical inflation. This statistic for 2013-2014 is 1.7%, indicating no major change in the second year of full HDHP enrollment.

Similarly, the overall price shopping effect $PS_{t+1,t}$, presented in the third column, is fairly small across the pairs of years studied ranging from -0.6% for 2009-2010 to 3.6% from 2012-2013. Interestingly, this effect is *largest* for 2012-2013, implying that after the forced switch to the HDHP consumers are actually increasing the expense they're paying for a given procedure, rather than price shopping and moving to lower priced providers when they face a higher marginal price for care. Remember that this statistic conditions on year t+1 prices (here 2013 prices) so the 3.6% reflects shifting to more expensive providers for a given procedure (and not price inflation). The fact that this estimate goes in the 'wrong direction' suggests that other demand / preference trends for consumption may have shifted consumers towards more expensive providers conditional on a given procedure and, importantly, that medical spending was not markedly reduced due to consumers shopping for cheaper providers for a given procedure.[33] These results are particularly striking insofar as we study an environment where consumers were provided a comprehensive online tool to help them for prices in their region for different procedures. The 2013-2014 price shopping statistic is 0.7%: this is not sufficiently different from the prior year values to conclude that consumers learn to price-shop over time, in year two after the forced switch. This does not mean that some learning did not occur, but does mean that it did not meaningfully impact overall spending.

Table 7 presents a measure of *potential savings from price shopping* to give a sense of how large such savings could be in our environment, in a partial equilibrium sense. We compute a statistic that assesses what percentage of total spending would be saved if consumers who spend above the median price for a given procedure substituted to the median priced provider for that procedure in their region. For our overall spending metric, we then aggregate these statistics over all procedures. This potential savings metric does not incorporate any notion of whether higher-priced providers are higher quality, which would be important to assess welfare. For each two year pair presented, the percentage that could be saved is based on potential substitutions in the second year of each pair. Column 1 shows potential price shopping savings for overall spending, which ranges from 18.3% from 2009-2010 to 21.1% in 2011-2012. 2012-2013 and 2013-2014 values are 20.1% and 20.8% respectively. These results give a sense that there are quite a bit of potential savings from price shopping that are not currently being realized, though a complete welfare analysis would have to integrate factors such as travel costs and provider quality.

Spending is not decreasing in 2013 and 2014 because of provider price decreases or consumer price shopping. The main reason for the total medical spending reduction after the forced switch was quantity reductions by consumers. For the three pairs of years between 2009-2012, the % change in overall medical service quantities ranges from 6.0-8.4%., indicating increasing quantities over that time frame. For 2012-2013, the quantity of services consumed dropped by 17.9%, and,

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[33]For robustness, in Appendix A we perform this decomposition for new employees. We do this because one reason for a lack of short-run price shopping may be that consumers have existing relationships with providers that they want to maintain. New employees in each year should be less likely to have such relationships. We perform a cross-sectional version of this analysis for new employees in 2012, compared to new employees in 2013 (approx. 2,600 new employees and 4,300 new covered lives in each year). These new enrollees spend on average $3,994 in 2012 and $2,976 in 2013, about 25% lower than our primary sample. For new enrollees we find similar patterns for the spending reduction decomposition: a 1.6% effect of our price shopping measure on spending, a -16.5% impact of reduced quantities on medical spending, and a 1.3% increase in provider prices. See the appendix for more detail on this analysis.

**Total Spending Change
Decomposition**

	$\Delta TS_{t+1,t}$	$PPI_{t+1,t}$	$PS_{t+1,t}$	$Q_{t+1,t}$	$QS_{t+1,t}$
2009-2010	9.3%	3.4%	-0.6%	6.0%	0.5%
2010-2011	11.1%	2.0%	2.4%	6.8%	-0.1%
2011-2012	10.4%	0.2%	0.3%	8.4%	1.5%
2012-2013	-15.3%	1.2%	3.6%	-17.9%	-2.2%
2013-2014	6.6%	1.7%	0.7%	0.7%	3.5%

Table 6: This table presents the results for our decomposition of the total reduction in medical spending from one year to the next into three effects: (i) provider price inflation index (ii) price shopping effect and (iii) quantity change effect, broken down into straight quantity reductions and the impact of substitution across types of procedures on medical spending. See the discussion in the text for precise definitions of each of these effects.

thus, was the primary contributor to the drop in total medical spending over those two years as a result of the forced HDHP shift. Interestingly, from 2013 to 2014, quantities increase by only 0.7%, indicating a lower growth rate than prior to the HDHP switch. The table also reports the impact of substitution across types of procedures on medical spending, and shows that this effect is negligible over time, ranging from -2.2% for 2012-2013 to 3.5% from 2013-2014 (this effect is more important for drug spending, which we discuss momentarily).

Finally, in this Appendix subsection, we provide a detailed decomposition of treatment effects for each of the top 30 procedures (by total firm-wide spending).

We note that due to anticipatory spending, our 2012-2013 effects here may overstate the total spending reduction and total quantity reduction. Section 3 showed that such spending accounts for between 3-7% of the 2012-2013 spending reduction: if this all comes from quantity substitution, for a representative set of quantities, then the total spending change for 2012-2013 will be roughly between 8.3-12.3% in this section, and the total quantity reduction between 10.9-14.9%. It is clear that, regardless of the anticipatory spending adjustment made, quantity reductions are the primary reason for the documented drop in total medical spending due to the HDHP.[34]

Table 8 presents the same decomposition for types of consumers and classes of medical procedures of specific interest. First, it investigates the decomposition of the total spending change for the sickest quartile of consumers in the population. As shown in Section 3 these consumers substantially reduce spending and it is particularly interesting to understand how and why they

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[34]We also perform this spending change decomposition for specific calendar year months, e.g., performing the decomposition for the spending change from January 2012 to January 2013. We find that the price index effect is close to constant throughout the calendar year for the 2012-2013 change, and that the price shopping effect also has negligible variation throughout the year (ranging between -1% and +6% across the 12 calendar months. Quantity reductions range from -12% (July and September) to 22% in November and December, with a median value of -17% throughout the year.

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Price Shopping
Potential Savings

	Overall	Imaging	Preventive	Preventive w/ Diag.	Sickest 25%
2009-2010	18.3%	24.9%	11.8%	8.8%	18.1%
2010-2011	18.7%	28.1%	12.2%	10.5%	19.0%
2011-2012	21.1%	37.1%	12.4%	10.4%	21.5%
2012-2013	20.1%	34.2%	12.5%	12.0%	21.3%
2013-2014	20.8%	37.0%	11.4%	12.5%	21.3%

Table 7: This table presents the potential savings from price shopping in each two year pair studied. Potential savings are defined by savings that would occur if consumers spending above the median for a given procedure reduced their spending to the median value for that procedure. Potential savings are calculated for the second-year of each two year pair, and presented for overall spending and specific spending categories.

do so given that (i) over half of these consumers reach the out-of-pocket maximum in 2013 (where the marginal price of care is 0) and (ii) these consumers may be economizing on valuable care.

These consumers have an absolute decrease in spending of 19.5% from 2012 to 2013, with total spending changes of 6.1% and 5.9% for the prior two pairs of years. Over all two year pairs, the price inflation index ranges between -0.1% and 1.1%, with similarly small values for the price shopping index. Again, for this population the key component of spending reductions from 2012-2013 are quantity reductions, which are responsible for a 20.0% reduction in spending for this group over those two years (in prior years, this ranges from 3.5% to 4.1%). Quantity substitutions across procedures account for a 3.3% reduction in spending from 2012-2013. Spending and quantities rise for these consumers from 2013-2014, with a quantity increase of 9.0% and a quantity substitution effect of 7.9%, indicting a movement / trend towards higher priced procedures. Overall, there is strong evidence that the sickest consumers are primarily reducing quantities when reducing spending: at the end of this section we break this down at the procedure level and find that these consumers are reducing quantities of most common medical services.

Table 8 also investigates this decomposition for (i) general preventive services (ii) preventive services that are only considered preventive with a prior diagnosis and (iii) imaging services, which are often cited as services where there is potentially wasteful spending. Preventive services are interesting to study because they are considered to be valuable services that consumers typically under-consume, and they are free under the HDHP (so that there is no true price change for them from 2012-2013). For general preventive services (which don't require a prior diagnosis) the results are quite interesting: total spending only decreases by 0.3% from 2012 to 2013, but the provider price inflation for these services is 6.4%, implying that prices increased much more than average. Consumers reduce quantities of these services by 7.5% from 2012-2013, which is direct evidence in support of 'behavioral hazard' (Baicker et al. (2013)) whereby consumers reduce consumption

of services that are of potentially high value. Interestingly, from 2013-2014 preventive quantities continue to decrease (by 5.2%) but provider prices increase by 12.6% and total spending increases by 13.0% on these services.

The fact that consumers economize on care that is still free could suggest limited consumer information on prices when making medical consumption decisions (e.g. preventive services that are in fact free). Another explanation for why consumers reduce preventive services is that consumption of these services may be bundled together with more expensive services during visits to providers: if consumers reduce visits overall they are likely to reduce consumption of preventive services. Similar results hold for preventive services where a prior diagnosis is required (which may encompass more essential care): total spending on these services is reduced by 10.6% from 2012 to 2013, with quantity reductions accounting for a 12.2% spending drop (for this category, quantities rebounded slightly, by 3.8%, from 2013 to 2014). For both kinds of preventive services trends in prior years had both increasing total spending on these services, and flat or increasing quantities consumed. Neither preventive service category shows a significant price shopping effect, and potential price shopping savings are 12.5% for services that are always preventive and 12.0% for those that are preventive with a prior diagnosis.

The results on imaging decompose a substantial reduction in imaging spending, 19.5%, from 2012 to 2013 (for earlier years, this spending increases between 5.5% and 12.4%). Price inflation in imaging is low, at -0.4% from 2012-2013, down from between 0.4% to 5.6% in earlier years. Tellingly, consumers reduce service quantities from 2012-2013 by 17.7%. Thus spending on imaging decreases, prices stay flat, and consumers reduce quantities of imaging services after the switch to the HDHP. Despite the relative homogeneity of imaging services and the large potential savings from price shopping (34.2%), there is a negligible impact of price shopping on spending, Finally, quantities for imaging only increase by 1.1% from 2013-2014 and total spending continues to decrease, by 2.3%, for imaging services over that pair of years.

Next, we take a deeper dive looking at specific procedures, and present the results of this decomposition for the 30 procedures on which consumers spend the most at the firm over the two-year treatment period 2012-2013. Table 9 presents the results for 9 of these top 30 procedures, with the rest presented in Table A9 in Appendix A. For quantity changes we only present $QE_{t+1,t}$ since there is no possibility of substitution across procedure types when studying one procedure at a time.

Overall, for these top 30 procedures by revenue, 22 had increases in quantity consumed from 2010 to 2011, 24 had increases in quantity consumed from 2011 to 2012, but only 5 had increases in quantity consumed over the treatment period 2012-2013. This number rebounded to 24 that increased quantity from 2013-2014. 13 procedures had positive spending increases due to the price shopping effect from 2010-2011, with 19 having positive effects for 2011-2012, 18 for 2012-2013, and 17 for 2013-2014. 19 of the procedures had provider prices increase on average from 2010-2011, with 21 from 2011-2012, and only 16 and 11 for 2012-2013 and 2013-2014 respectively. At a high-level, this suggests that most of the reduction in spending due to the switch to the high-deductible plan came from consumers reducing quantities of care, with the remainder of the effect due to

Specific Effects
Spending Decomposition

	% Tot. Spend	$\Delta TS_{t+1,t}$	$PPI_{t+1,t}$	$PS_{t+1,t}$	$Q_{t+1,t}$	$QS_{t+1,t}$
Sickest Quartile						
2010-2011	44.7%	6.1%	1.1%	-0.4%	4.1%	1.3%
2011-2012	45.0%	5.9%	-0.1%	-0.5%	3.5%	3.0%
2012-2013	49.7%	-19.5%	0.4%	3.4%	-20.0%	-3.3%
2013-2014	56.0%	19.2%	0.0%	2.3%	9.0%	7.9%
Preventive w/ Diagnosis						
2009-2010	16.0%	1.5%	3.0%	-0.8%	-0.4%	-0.3%
2010-2011	14.7%	3.0%	2.4%	-0.7%	0.1%	1.2%
2011-2012	13.7%	13.0%	3.6%	0.8%	7.3%	1.3%
2012-2013	16.1%	-10.6%	2.0%	1.0%	-12.2%	-1.4%
2013-2014	14.9%	10.3%	5.8%	-0.2%	3.8%	0.9%
Preventive Always						
2009-2010	7.4%	4.0%	3.9%	-2.1%	-5.7%	7.9%
2010-2011	7.6%	4.1%	-1.6%	9.2%	-0.4%	-3.1%
2011-2012	7.9%	1.3%	-6.5%	-0.5%	6.3%	2.0%
2012-2013	9.1%	-0.3%	6.4%	2.1%	-7.5%	-1.3%
2013-2014	8.8%	13.0%	12.6%	4.8%	-5.2%	0.8%
Imaging						
2009-2010	10.1%	7.5%	5.6%	0.1%	3.1%	-1.3%
2010-2011	9.5%	5.5%	2.7%	-1.9%	6.3%	-1.6%
2011-2012	10.0%	12.4%	0.4%	0.2%	13.5%	-1.7%
2012-2013	11.1%	-19.5%	-0.4%	0.6%	-17.7%	-2.0%
2013-2014	9.2%	-2.3%	-2.3%	3.7%	1.1%	-4.8%

Table 8: This table presents the results for our decomposition of the total reduction in medical spending from one year to the next into three effects: (i) provider price inflation index (ii) price shopping effect and (iii) quantity reduction effect, broken down into straight quantity reductions and the impact of within-category substitution across types of procedures on medical spending. It presents the decomposition for (i) the sickest quartile of consumers (ii) procedures which are preventive as stand alone procedures (iii) procedures which are preventive only in combination with a diagnosis and (iv) imaging procedures.

slightly decreasing provider prices. While we cannot rule out a true price-shopping effect, since our price shopping calculation could incorporate trends towards moving to higher price providers, our results suggest the the one-year spending reductions resulting from the switch to the high-deductible plan were not the result of increased consumer price shopping. Finally, and tellingly, 24 of the 30 procedures had increasing total spending from 2010-2011, 24 from 2011-2012, but only 4 from 2012-2013. These results add context to the aggregate results: consumers reduce quantities across almost all of the most common / highest total spend medical procedures. This suggests that cost-sharing might be an effective but blunt instrument to control health spending: higher cost-sharing clearly reduces medical spending, but seems to do so across the spectrum of medical procedures, some of which are likely still valuable and others which are likely not.[35]

The results for specific procedures given in Table 9 are also of interest. Both routine pregnancy deliveries and C-section deliveries have very small quantity changes over the treatment period, but prices for each procedure declined by approximately 16%, much more so than in non-treatment years (e.g. 2010-2011, presented in the table). Despite the flat change in overall pregnancies, in the treatment period there was a 13.8% decrease in ultrasounds due to pregnancy (compared to a 2.0% quantity increase for 2010-2011) and an overall 17.7% decrease in total spending on those ultrasounds.

In the treatment period, consumers reduced their quantity of colonoscopy biopsies by 25.8%, compared to an 18.6% *increase* in quantity consumed from that service from 2010-2011. They reduced consumption of colonoscopy diagnostics by 31.6% in the treatment period, compared to a 9.9% increase from 2010 to 2011. There was a 8.9% decrease in mammography screenings during the treatment period, compared to a 17.2% increase in those screenings from 2010-2011. These services are especially interesting since they are preventive services that consumers could receive at no cost under the high-deductible plan. This suggests that quantities were reduced either because consumers did not know that these screenings were still free, or because they made fewer overall visits to the doctor's office, where some services were preventive and others were not. There were also substantial reductions in quantities of Brain MRIs and joint MRIs, as shown in Table 9.

Drug Spending. Since the nature of shopping is inherently different for prescription drugs than for typical medical services and providers, we excluded drug spending from the spending reduction decomposition just presented. Here, we discuss a similar decomposition for prescription drugs.

For prescription drugs, because allowed drugs prices are essentially the same across all in-network pharmacies, we combine the provider price index measuring price inflation and the price shopping index into one average price change index. Table 10 shows these average price changes and the quantity changes for drugs for year pairs spanning 2009-2014: the quantity change is still broken down in straight quantity reductions and the impact of substitution across drug types on

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[35]More research is needed to determine the welfare implications of the type of spending reductions we document here. Without a careful welfare assessment of the value of medical services, across the range of medical services, we can only suggest that reduced quantities across the range of services is consistent with reductions in both valuable and non-valuable services. E.g., there could just be consumers for whom certain procedures aren't valuable, across all procedures, and those consumers are the ones reducing care.

**Total Spending Change
Decomposition
High Spend Procedures**

	% Total Spend	$\Delta TS_{t+1,t}$	$PPI_{t+1,t}$	$PS_{t+1,t}$	$QE_{t+1,t}$
Routine Vaginal Birth (59400)	2.7%	-13.6%	-15.4%	1.4%	0.4%
	2.9%	-4.1%	1.2%	-1.6%	-3.7%
Routine Cesarean Section Birth (59510)	1.9%	-18.9%	-16.8%	0.1%	-2.2%
	2.2%	0.8%	2.3%	-0.4%	-1.1%
Ultrasound, Preg. Uterus (76817)	0.7%	-17.7%	-5.6%	1.7%	-13.8%
	0.8%	2.9%	3.4%	-2.5%	2.0%
Colonoscopy, with Biopsy (45380)	1.3%	-28.4%	2.6%	0.6%	-31.6%
	1.1%	15.8%	1.0%	4.9%	9.9%
Colonoscopy, Diagnostic (45378)	1.1%	-28.6%	0.5%	2.1%	-31.2%
	0.9%	38.2%	1.8%	3.2%	33.3%
Mammography, Screening (G0202)	1.5%	-7.6%	0.2%	1.1%	-8.9%
	1.3%	19.9%	0.8%	1.9%	17.2%
MRI, Brain (70553)	2.0%	-6.1%	-4.7%	-1.8%	-9.0%
	1.9%	18.9%	-2.7%	-8.7%	30.4%
MRI, Hip/Knee/Ankle (73721)	1.3%	-23.9%	1.2%	2.3%	-28.4%
	1.5%	5.7%	2.3%	-2.5%	6.0%
Foot, Molded Insert (L3000)	1.1%	-60.3%	2.0%	1.4%	-63.7%
	1.3%	12.1%	-0.6%	1.1%	11.7%

No. top 30 w/ Positive Value

2010-2011	-	24	19	13	22
2011-2012	-	24	21	19	24
2012-2013	-	4	16	18	5
2013-2014	-	23	11	17	24

Table 9: This table presents the results for our decomposition of the total reduction in medical spending from one year to the next for select procedures codes of interest from the top 30 procedure codes in terms of total medical spending over 2012-2013. Select procedures are presented for brevity: the results for all 30 procedures are presented in Table A9 in Appendix A. For each procedure, the first row gives the values for each effect over period 2012-2013, while the second row gives the corresponding values for 2010-2011 as a reference point. The bottom of the section of the table presents the number of positive % changes for each part of the spending decomposition, for all 30 of the top procedures by revenue, for year pairs from 2010-2014.

Prescription Drug
Spending Change Decomposition

	$\Delta TS_{t+1,t}$	$PPI_{t+1,t} + PS_{t+1,t}$	$Q_{t+1,t}$	$QS_{t+1,t}$
2009-2010	10.1%	6.4%	3.6%	0.1%
— Brand (38.8%)	10.5%	14.0%	-3.0%	-0.5%
— Generic (61/2%)	16.3%	5.2%	10.5%	0.6%
2010-2011	6.6%	5.3%	1.2%	0.1%
— Brand (35.3%)	7.5%	13.1%	-4.9%	0.7%
— Generic (64.7%)	8.3%	1.1%	7.1%	0.1%
2011-2012	4.2%	-0.2%	4.5%	-0.1%
— Brand (32.9%)	7.1%	6.7%	0.3%	0.1%
— Generic (67.1%)	-4.1%	-10.4%	6.9%	-0.6%
2012-2013	-21.3%	-4.3%	-17.8%	0.8%
— Brand (28.7%)	-20.7%	13.6%	-30.3%	-4.0%
— Generic (71.3%)	-22.4%	-12.0%	-11.8%	1.4%
2013-2014	13.9	5.3%	8.1%	0.5%
— Brand (25.1%)	19.1%	17.5%	1.3%	0.3%
— Generic (74.9%)	-2.7%	-10.2%	8.3%	-0.8%

Table 10: This table presents the results for our spending reduction decomposition, applied to prescription drugs. The numbers in parenthesis in the first column indicate the percentage of drugs used that are brand vs. generic.

spending. The table also studies this decomposition separately for brand drugs and generic drugs.

As in our analysis of overall medical spending, the table reveals that drug spending increased at a steady rate from 2009-2012, decreased sharply for 2013, and began to increase again in 2014. For all drugs, the drop in spending for 2013 was almost entirely due to quantity reductions, as was the case with overall spending. When broken down into the impacts on brand drug consumption and generic drug consumption, some interesting patterns emerge. While brand drug counts steadily decrease and generics steadily increase over time in the pre-period, over the treatment period 2012-2013 the quantity of brand drugs consumed decreases by 30.3% while that of generics only decreases by 11.8%. Within the class of brand drugs, from 2012-2013, quantity substitutions across the mixture of brand drugs reduces spending by 4%, while for generics this increases spending by 1.4%, suggesting together that consumers are substituting away from more expensive brand drugs to their generic counterparts. Additionally, price inflation for brand drugs is quite high over time, while generic drugs prices are decreasing in a meaningful way over time. Taken in sum, our spending reduction decomposition for prescription drugs suggests that consumer spending reductions are primarily due to reduced quantities (rather than substitution from brand to generic) and that brand drug consumption is much more heavily reduced than generic consumption.

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5 Consumer Responses to Non-Linear Contract

As a result of the forced shift to high-deductible health care from free health care, the consumers we study reduced health care spending causally between 11.02% and 15.19%, off a baseline of $740 million in total spending. These spending reductions came in large part from well-off and predictably sick consumers facing reasonably low yearly out-of-pocket maximums. Moreover, consumers reduced spending almost exclusively by buying lower quantities of health care services, rather than through price shopping for cheaper services, or, indirectly, by having access to lower priced providers over time.

While these facts clearly establish who reduced spending, and how they did so, they do not explain why. In this section, we investigate in depth how consumers respond to the complex yearly price structure of the HDHP in order to explain why predictably sick and well-off consumers with low out-of-pocket maximums reduce medical spending. Our analysis is motivated by research across a range of industries suggesting that consumers may respond to 'spot' prices, i.e. the prices they face on any given day, rather than the price a fully rational consumer would respond to, which is the actual shadow price of current spending given the contract and expected future spending (we also refer to this as the expected marginal price). In the context of Medicare Part D prescription drug coverage, Einav et al. (2013a), Dalton et al. (2015), and Abaluck et al. (2015) use different approaches to show that consumers markedly reduce consumption after they hit the 'donut hole' (a region where they pay 100% of cost), even when they should have clearly expected to end their year in that coverage region, with a shadow price equal to the full cost of a given drug. Aron-Dine et al. (2012) study consumer responses to non-linear insurance contracts in a large-employer health insurance setting, and conclude that consumers respond to both spot and true shadow prices for care during the year. Grubb and Osborne (2015) and Nevo et al. (2015) study consumers responding to non-linear tariffs in cellular phone and broadband markets respectively. In electricity markets, Ito (2014) documents how consumers respond to average prices over the course of non-linear contracts, rather than true marginal prices. Liebman and Zeckhauser (2004) refer to this phenomenon as "schmeduling," and discuss behavioral foundations for why consumers may not respond to expected marginal prices in complex non-linear contracts.

In our environment, if consumers respond to simpler spot prices, rather than the true marginal (i.e. shadow) price of care, then they will under-consume care relative to what a fully rational dynamically optimizing consumer would do. This is true because the spot price in the HDHP is weakly decreasing during the year, and will thus always be weakly higher than the true shadow price of care. In some cases it will be much higher: for example, a predictably sick consumer will be under the deductible early in the year (spot price of 100% of cost) but will have a true shadow price close to 0%, since they can expect to get close to, or surpass, the plan out-of-pocket maximum.

Here, we investigate the extent to which consumers' emphasis on spot prices, rather than the true shadow prices, reduces their medical spending. This could be one potential explanation for why predictably sick and relatively well-off consumers still reduce spending under the HDHP. We also leverage our two years of post-period data to investigate whether consumers learn to respond

to the true shadow price instead of the spot price once they have experience with the HDHP plan.

Our empirical environment is uniquely well suited to study consumer dynamic responses to spot and shadow prices in non-linear contracts. In the pre-period, all consumers in the primary sample are enrolled in completely free health care, with no shadow price dynamics throughout the year as risks are realized. Because the entire large population shifted from free health care to the non-linear HDHP contract for 2013, we can use simple cross-sectional assumptions on population health together with detailed micro-level data on health status and incremental spending throughout the calendar year (pre and post switch) to trace out consumer responses to spot prices vs. shadow prices. We compare incremental spending and dynamics for consumers in 2013 (first treatment year) and 2014 (second treatment year) to that in 2011, a pre-period year without anticipatory spending at the end of the year.[36]

Model. Denote consumer health status at the beginning of a calendar year by H_Y and consumer demographics as X_Y. Our key assumption maintains that the cross-sectional distribution of population health needs *at any point t* during treatment year Y is the same as that cross-sectional distribution at the same point in time t in control year Y'. We assume this is true conditional on H_Y and X_Y, to leverage the scale and depth of the data. Formally, using 2013 as an example treatment year and 2011 as an example control year, we assume:

$$F_{2013}[s_t|H_{2013}, X_{2013}] = F_{2011}[s_t|H_{2011}, X_{2011}] \ \forall t = 1, ...12$$

Here, s_t describes the health state of consumers at the beginning of month t and F denotes the distribution of that health state. This assumptions implies that, conditional on ex ante health status and demographics, the dynamic evolution of population health needs throughout the year is identical in the treatment year and the control year. This assumes that, in the treatment years of 2013-2014, consumers do not become, on average, sicker throughout the year due to dynamic effects from reducing the care consumed earlier in the year. To the extent that this assumption is violated, this will work against our main results as we will predict *lower* differences in spending for 2013 and 2014 relative to 2011 because consumers will be conditionally sicker in those years. Our upcoming analysis of consumers who have already passed the out-of-pocket maximum in the treatment years also supports the notion that such within-sample health effects on spending are minimal, since their incremental spending is identical to equivalent pre-period consumers.

With this assumption on the within-year evolution of health status in place, we next define the mapping from the health state and insurance contract to incremental consumer spending as:

$$G[M_{t+x} - M_t|s_t, H, X, Ins_t]$$

Here, M_t is year-to-date spending at the beginning of month t and M_{t+x} is the year-to-date spending

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[36]In 2013, spending in January and February may be depressed because of anticipatory 2012 spending, as discussed in Section 3. This becomes a smaller concern as we move through the year 2013 and is not of high enough magnitude to markedly impact our results.

at the beginning of month $t+x$. So, here if $x = 1$, G reflects the distribution of incremental monthly spending in the population for month t, given the health state, insurance contract Ins_t, ex ante health status, and ex ante demographics. For any given month t, if $x = 12 - t$ then G reflects the distribution of rest of year spending from the beginning of month t.

Empirically, we observe M_t and M_{t+x} for feasible t and x within a calendar year, as well as insurance contract details Ins_t and ex ante health status and demographics H and X. s_t is unobserved. To implement our analysis, we assume that there is a one-to-one monotonic mapping between s_t, which is unobserved, and year-to-date spending M_t, conditional on H and X. Thus, if a consumer spending M_t by month t in 2013 is at the Zth quantile for M_t, conditional on other observables, then that consumer is directly comparable to the Zth quantile consumer for M_t in 2011. This means, e.g., that if 35% of consumers have M_t that places them in the coinsurance region for the high-deductible plan at the beginning of June, 2013, those consumers can be directly compared to the 35% of consumers in 2011 in the same quantile range for M_t in that year.[37] This permits direct comparison between spending patterns within the calendar year for consumers under the HDHP in 2013, as a function of insurance contract prices, and those patterns for equivalent consumers in 2011 under free health care.

The final part of the model is the definition of different potential prices consumers might respond to in the HDHP as the calendar year evolves (i.e. the components of Ins_t). The primary prices we study are:

- **Spot Price, P_t^s:** This is the marginal price a consumer faces at the time they make the decision to consume health care. This corresponds directly to the three arms of the non-linear high-deductible contract, and equals 1 if consumers have not reached the deductible (they bear 100% of cost), equals .1 if consumers are in the coinsurance region (they pay 10% of cost), and equals 0 if consumers have passed the out-of-pocket maximum. Prior to the high-deductible plan, consumers always have spot prices of 0.

- **Shadow Price / Expected Marginal EOY Price, $P_t^e = E_t[P_T^s | M_t H, X, Ins_t]$:** The shadow price is the expected marginal end-of-year price for a given consumer, given their health status and year-to-date spending at t. This price evolves dynamically throughout the year as risks are realized, and is the only price that a fully rational and informed consumer without liquidity constraints would use when making health care decisions.

- **Prior Year End Marginal Price, P_t^L:** This price is defined as the actual end of year price a consumer would have faced if their total medical spending during the prior year occurred in the HDHP. For consumers in 2014, this is their actual end-of-year price from 2013. For consumers in 2013, this is what their end-of-year price in 2012 would have been if they had been in the HDHP

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[37]This concept manifests slightly differently for individuals and for families. For individuals, it is as described in the text and straightforward to implement in both descriptive analysis and regressions. For families, in the descriptive analysis we assume that families have one health state measure s_t, and conduct the analysis under that assumption. For our regression analysis, we pursue a more sophisticated approach that studies individual behavior within the family structure.

in that year. This price is intended to capture consumer behavior where consumers explicitly use their most recent risk realizations to project their shadow price of care.

Computing P_t^s is straightforward for each consumer and each month by mapping M_t to the corresponding non-linear contract spot price (deductible, coinsurance, or out-of-pocket maximum). Computing P_t^L is similarly straightforward, taking the spot price implied by the previous year's total spending applied to the HDHP. Computing the shadow price / expected marginal price is more complex because it involves computing expectations about total end-of-year spending for each consumer at the beginning of each month. To construct P_t^s we use the following process:

1. For each month t define cells of equivalent consumers using the triple (H, X, M_t). We define these cells to be as precise as possible while maintaining sufficient sample sizes to determine a distribution of end-of-year spending realizations for each cell. In practice we define these cells as follows. We divide individuals by sextiles based on H_Y. We use age as our only X variable, and split consumers into five age bins (0-15, 16-25, 26-35, 36-45, 46+). Then, for each cell combination of age and health, we divide consumers into deciles based on year-to-date spending M_t. Overall, we use 270 cells.[38]

2. Assign individual i to one of these cells for each month t.

3. Form non-parametric end-of-year spending distribution for individuals i in cell t using all the observations for actual end-of-year spending in cell (H, X, M_t). Denote this distribution $f_{i,t}(M_{i,T}|H, X, M_{i,t})$.

4. Combine individual end-of-year spending distributions into family distributions, assuming no correlation in spending for individuals with a family:

$$f_{j(i),t}(M_T) = \Sigma_{\Sigma_{M_{i,T}=M_T}} \Pi_i^{j(i)} f_{i,t}(M_{i,T})$$

Thus, the family distribution of end-of-year total spending is just the distribution of the sum of individual end-of-year spending across individuals in that family.

5. The distribution of family end-of-year prices $P_{j,T}^s$ is the distribution that results from mapping the M_T coming out of $f_{j(i),t}(M_T)$ to the corresponding spot prices for each M_T, either 1,.1, or 0. The expected marginal price, or shadow price, is thus:

$$P_{j,t}^e = \Sigma_{M_T \in \mathbf{M}_T} P_{j,T}^s(M_T) f_{j,t}(M_T)$$

$P_{j,t}^e$ in our model is intended to serve as the price a rational and fully informed consumer should perceive as their true price of incremental care at t. We note that this framework is not intended to be a model of how consumers *actually* behave but rather a model of how a rational consumer in

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[38]We combine 30 of the 300 possible cells into neighboring cells if sample sizes are too small, i.e. sick consumers between 16-25.

their situation would behave.[39] Our upcoming analysis investigates whether consumers respond to alternative prices (e.g. spot prices or last year's end marginal price): if they do so, this suggests a departure from what a fully informed and rational consumer would do.[40]

Finally, we note that, when forming the expected end-of-year price, we deal with the issue of reverse causality (where cohort spending reductions imply changes to the expected end-of-year prices) by instrumenting for expected end-of-year prices in treatment years with the projected end-of-year prices for similar consumers prior to the forced HDHP switch. These prices are correlated with those from equivalent consumers post-switch, but not correlated with changes to incremental spending that result post-switch. We use these instrumented versions of P_t^e throughout the descriptive and regression analysis.

Descriptive Analysis. We first use this framework as the basis for a series of descriptive analyses that investigate incremental consumer spending as a function of s_t and Ins_t across the calendar year. Then, we turn to regression analyses that formally quantify how consumers respond to the different possible prices they respond to. For parsimony, we present the descriptive analysis in this section for families (covering 3+ individuals total) since the majority of employees are in this coverage tier and the vast majority of spending comes from employees and dependents in this tier. Similar analysis for individuals and those with just one dependent are presented in Appendix A. See Table 3 for additional descriptive statistics on which non-linear contract plan arms consumers would have ended the year in had they been enrolled in the HDHP in 2012.

Our first set of descriptive analyses examines incremental spending (age and year adjusted) by month for consumers in 2013 (or 2014) relative to that spending by equivalent consumers under free insurance in 2011. We examine the distribution of consumers' incremental spending for (i) the next month and (ii) the rest of the year, starting at any given month t. We begin by examining incremental spending as a function of the spot price consumers face at the beginning of month t in 2013, and compare that to the incremental spending of the equivalent quantiles of consumers for M_t in 2011.

It is useful to provide an example to illustrate the methodology when we consider spot prices alone. Consider incremental spending for the next month for consumers who have passed the out-of-pocket maximum by month t in 2013. For those consumers, we (i) determine the threshold quantile of total spending for consumers who have passed the out-of-pocket maximum and (ii) form a comparison population in 2011 corresponding to the same quantiles of M_t in that year. Thus, e.g., if 15% of families have passed the out-of-pocket maximum by November 2013, the comparison group for November 2011 is the top 15% of families by total spending at that point.

Figure 5 shows the mean and median incremental spending *for the next month* (left panel) and *for the rest of the year* (right panel) for families who have passed the out-of-pocket maximum by

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[39]In our analysis, we focused on this as the true marginal price of care, or shadow price. This abstracts away from within-year risk aversion with respect to the shadow price.

[40]It is important to note that, to the extent that our expected end-of-year price has statistical error, or is biased, this will suggest that consumers place some weight on other prices in our regression analysis. Given the precision of our model, and the large emphasis on spot prices we find, this seems like a secondary concern.

Figure 5: This figure shows incremental spending for employees who have passed the out-of-pocket maximum by the start of a given month in 2013. The left side of the figure studies incremental spending for the next month, while the right side studies incremental spending for the rest of the year. This 2013 incremental spending is compared to 2011 incremental spending for the equivalent quantiles of consumers based on total yearly spending up to month t, M_t.

month t in 2013. The figure presents the results for July-December of the calendar year, since few families pass the out-of-pocket maximum prior to those months in 2013.[41]

The figure illustrates that incremental spending for the next month is essentially the same for families in 2013 who have passed the out-of-pocket maximum at t and their comparison quantiles of families in 2011. The mean and median are almost identical across all months t from July to December between the control and treatment groups. Further, it shows that incremental spending for the rest of the year is also essentially identical for the treatment cohorts in 2013 and their respective comparison groups in 2011, across all t.

Taken together, these results suggest that once consumers have passed the out-of-pocket maximum under the HDHP in 2013, they spend exactly as much as they would have spent incrementally as in 2011. Since consumers who pass the out-of-pocket maximum always have $P_t^s = P_t^e = 0$, the same spot and shadow prices as the pre-period, the fact that these consumers spend the same in 2013 as their comparison groups do in 2011 provides a check showing that consumers respond equivalently to a price of zero in both periods. It also provides a simple test for our empirical strategy, akin to a falsification test. Were our assumptions about disease dynamics driving biased results we would expect to find differences even when prices are the same in both 2013 and 2011. Additionally, it implies that all of the spending and quantity reductions that we document earlier in this paper, including those for the sickest ex ante quartile of consumers, must come from consumers when they are either in the deductible arm or the coinsurance arm of the HDHP.

Next, we present analogous figures for consumers who begin a month in the coinsurance arm of the high-deductible plan in 2013. Here, for example, if families who have M_t placing them in the coinsurance arm are between the 27th and 70th quantiles of total spending by t, then we compare the incremental spending for this population in 2013 to the incremental spending for

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[41]Table A12 shows the number of families who have passed the out-of-pocket maximum by the beginning of a given month in 2013, climbing from 673 in July to almost 1,655 by December.
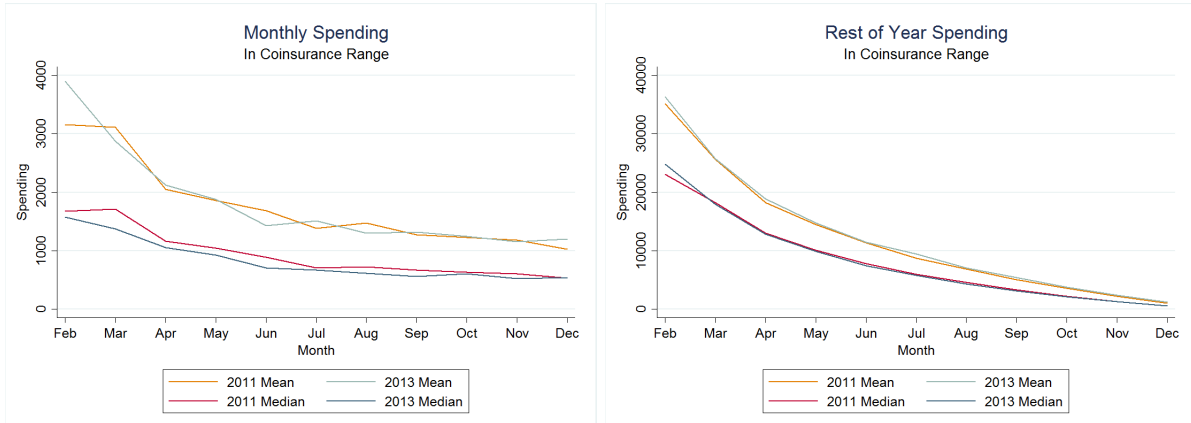
Figure 6: This figure shows incremental spending for employees who are in the coinsurance arm of the HDHP by the start of a given month in 2013. The left side of the figure studies incremental spending for the next month, while the right side studies incremental spending for the rest of the year. This 2013 incremental spending is compared to 2011 incremental spending for the equivalent quantiles of consumers based on total yearly spending up to month t, M_t.

families between the 27th and 70th quantiles of total spending by t in 2011. Table A12 shows the number of families in the coinsurance region at the beginning of each month in 2013.

The left and right panels of Figure 6 portray incremental monthly spending and incremental rest of year spending for these treatment and comparison groups. It is evident that both types of incremental spending are essentially the same for the treatment cohorts in 2013 and their relevant comparison groups in 2011. This is true uniformly throughout the calendar year. Once consumers reach the coinsurance region, their spending does not drop relative to the pre-period in free health care. Taken together with the out-of-pocket maximum results, this suggests that *essentially all* the reductions we have documented for reduced post-period spending come from consumers when they are actually under the deductible in the calendar year. In turn, this suggests that when predictably sick consumers reduce spending, they only do so when under the deductible early in the year.

This is borne out when we examine the analogous figures for families who begin a given month under the deductible (family counts by month given in Table A12). The left and right panels of Figure 7 plot incremental monthly spending and incremental rest of year spending across the calendar year for consumers under the deductible at the beginning of each month in 2013, and their relevant 2011 comparison groups. The figure shows substantial decreases in incremental monthly spending for consumers under the deductible in 2013, relative to their 2011 comparison groups. This decrease is approximately 25-30% throughout the calendar year for mean monthly spending, and 50% throughout the year for median spending. As expected, rest of year spending also drops for consumers in the treatment cohorts relative to the comparison cohorts.

When combined with our earlier descriptive evidence on predictably sick consumers reducing spending, these analyses suggest that these consumers only reduce spending when under the deductible, even though they should predictably go well past the deductible during the calendar year. We explore this more precisely by examining analogous descriptive analyses that examine incremental spending as a function of *both* spot price and expected family end-of-year price, i.e. the
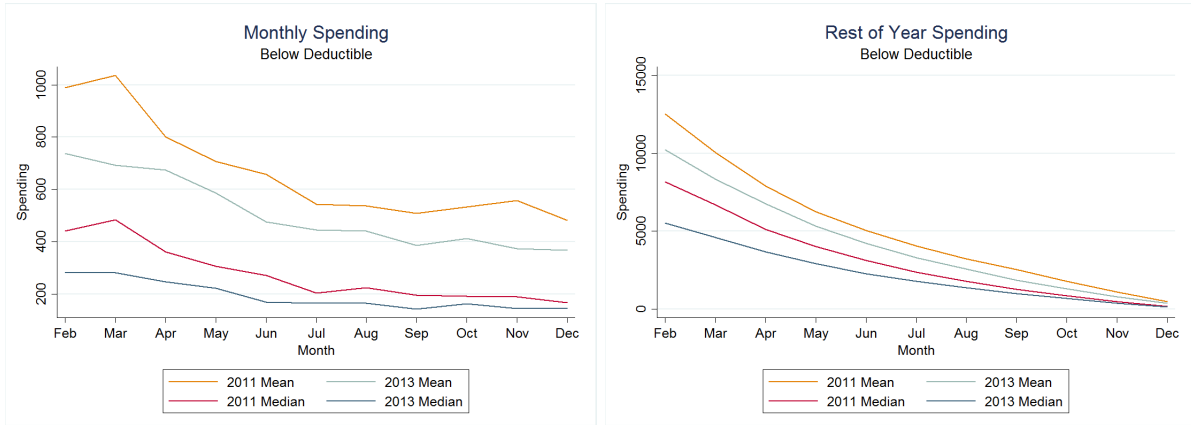
Figure 7: This figure shows incremental spending for employees who are under the HDHP deductible by the start of a given month in 2013. The left side of the figure studies incremental spending for the next month, while the right side studies incremental spending for the rest of the year. This 2013 incremental spending is compared to 2011 incremental spending for the equivalent quantiles of consumers based on total yearly spending up to month t, M_t.
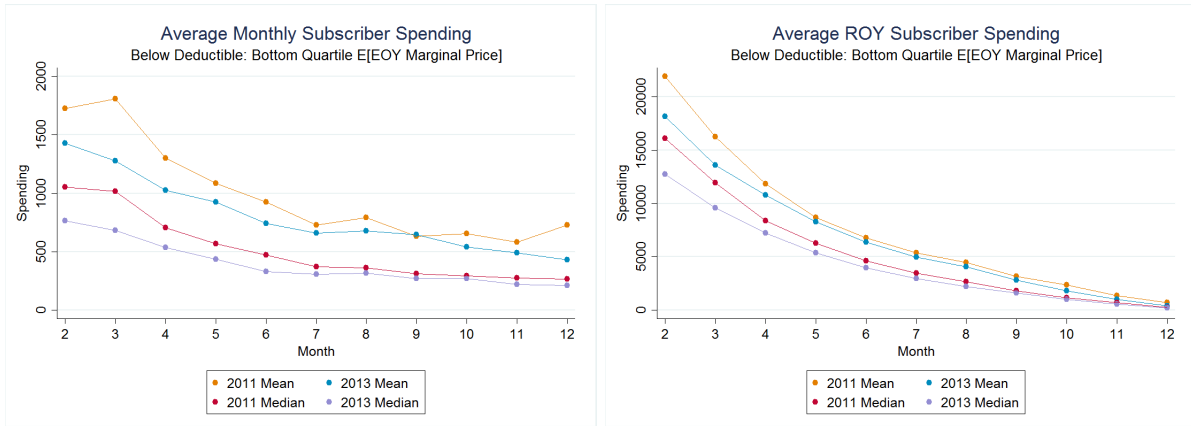

Figure 8: This figure shows incremental spending for predictably sick (25% of ex ante sickest consumers under the deductible at the start of each month) consumers who are under the HDHP deductible by the start of a given month in 2013. 2013 incremental spending is compared to 2011 incremental spending for the equivalent quantiles of consumers based on total yearly spending up to month t, M_t. and expected end of year price.

true shadow price of care. In our setting, this allows us to separate how predictably sick consumers respond when under the deductible, since those consumers will have quite low shadow prices, reflecting the expectation that they will almost surely pass the deductible, and possibly pass the out-of-pocket maximum, during the HDHP plan year.

The top panel of Figure 8 presents incremental monthly and rest of year spending for families who (i) start a month under the deductible in 2013 and (ii) are in the lowest quartile of expected end-of-year price (sickest quartile) conditional on starting the month under the deductible. It is important to note that the mixture of consumers under the deductible becomes notably healthier as the year goes on (since sick consumers spend money and move to the coinsurance region). Consequently, though we present the analysis for February - December for completeness, the months

% Savings by Start of Month Plan Arm		
	% 2013 Savings	% 2014 Savings
Start of Month Plan Arm		
Deductible	91%	120%
– EOY Q1 (Sick)	25%	33%
– EOY Q2	24%	30%
– EOY Q3	19%	24%
– EOY Q4 (Healthy)	23%	32%
Coinsurance	-5%	-10%
OOP Max	14%	-10%

Table 11: This table shows the % of total reduced 2013 and 2014 spending coming from consumers who start a given month in a given plan arm of the non-linear contract. The table integrates spending at the monthly level: e.g., a consumer starting February under the deductible has February spending count towards under deductible, while if that consumer starts March in the coinsurance range, March spending counts in the coinsurance category. 2013 and 2014 consumers' spending are compared to comparable quantiles of consumers' spending from 2011 as discussed in the text. For deductible, we break down consumers into the quartile of their shadow prices conditional on being in that plan arm at the start of a month.

early in the year are most relevant since this is when truly predictably sick consumers are still under the deductible. This panel shows that these consumers substantially reduce incremental monthly spending early in the year: for example, in March, the sickest quartile of consumers under the deductible reduce mean spending by about 25% relative to their 2011 comparison group, despite the fact that these consumers average about $15,000 in spending for the rest of the year, suggesting that they will easily pass the deductible on average. As shown in Table A13, these consumers have expected end-of-year prices of 0.08, and almost certainly end the year in either the coinsurance region of out-of-pocket maximum region. As shown earlier, consumers do not reduce incremental spending once they reach either of these other regions.

Applying a more stringent criterion — the sickest 10% of the population — we find patterns that mimic those for the sickest quartile, and show that these consumers reduce spending early in the year, despite having mean true shadow prices of 0.06. Appendix A includes additional analyses by illness level. Table A13 shows expected end-of-year prices conditional on plan arm and distribution and ex ante health status.

Table 11 brings together these descriptive analyses to illustrate the proportion of total yearly savings due to incremental monthly spending changes for consumers who start a given month in a given plan arm. 91% of the total yearly spending reductions from 2011 to 2013 for the families studied comes from consumers who started a given month under the deductible. This reflects the intuition presented in the earlier figures in this section: when consumers are under the deductible during the calendar year they reduce their spending, but otherwise only have negligible spending reductions. The Table shows that, for the families studied in this section, 25% of all spending re-

ductions during the year come from consumers who are (i) under the deductible and (ii) predictably sick in the sense that they have low expected end of year marginal prices, i.e. true shadow prices of care. Interestingly, 24%, 19%, and 23% of total spending reductions come from families in quartiles 2, 3, and 4 of shadow prices: this suggests that healthier consumers ex ante are also responsible for large portions of overall spending reductions, and that those occur when they are under the deductible during the year.[42]

Evolution of Spending Dynamics. It is possible that consumers respond heavily to spot prices, rather than true shadow prices, in 2013 because they are new to high-deductible health care and are still learning about the financial implications of that contract. In fact, Handel and Kolstad (2015) surveys consumers at the firm in 2012 and 2013 and shows many consumers lack information about specific financial aspects of the HDHP, even after they are forced to switch that plan. Further, other papers in the literature that study how consumers respond to non-linear contracts study environments where consumers have been enrolled in those contracts for some meaningful period time already (see e.g. Einav et al. (2013a) in Medicare Part D). Though the literature doesn't study the evolution of these dynamic responses over time, their results suggest that consumers' experience in the market does not come close to eliminating their emphasis on spot prices relative to true shadow prices.

Figure 9 replicates, for 2014 spending, the descriptive results presented earlier this section investigating how 2013 incremental spending compares to 2011 incremental spending as a function of the contract plan arm a consumer starts a given month in. The figure highlights that the patterns we discussed in depth for 2013 spending continue to hold in 2014, suggesting limited learning in how consumers respond to the non-linear HDHP contract moving through their second year in it. The 2014 panels that examine incremental spending in the deductible and co-insurance region look essentially identical to those from 2013. Consumers substantially reduce both incremental monthly and rest-of-year spending when they begin a given month under the deductible, but show no such incremental reductions when they begin in the coinsurance arm. Beyond the out-of-pocket max spending is, if anything, slightly *higher* relative to 2011. This small but positive effect may reflect the fact that the price trend adjustments made over time may slightly understate actual price inflation for high risk consumers.

Figure 10 examines the extent to which predictably sick consumers reduce incremental spending when under the deductible in 2014. The results mimic those for 2013: predictably sick consumers exhibit lower spending for the next month, and for the rest of the year, relative to comparable consumers in 2011, when they start the month under the deductible. Both the lowest shadow price quartile, and decile, reduce spending by meaningful amounts in this scenario, supporting the notion that these consumers are responding to spot prices in a meaningful manner (since their true shadow prices are still quite low, as in 2013).

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[42]Note that these numbers imply slightly different predictions than those in Table 5 in Section 3 because this section restricts the analysis to families and end-of-year marginal price is determined at the family level, as opposed to thinking about health status from the individual perspective as is done in Table 5.
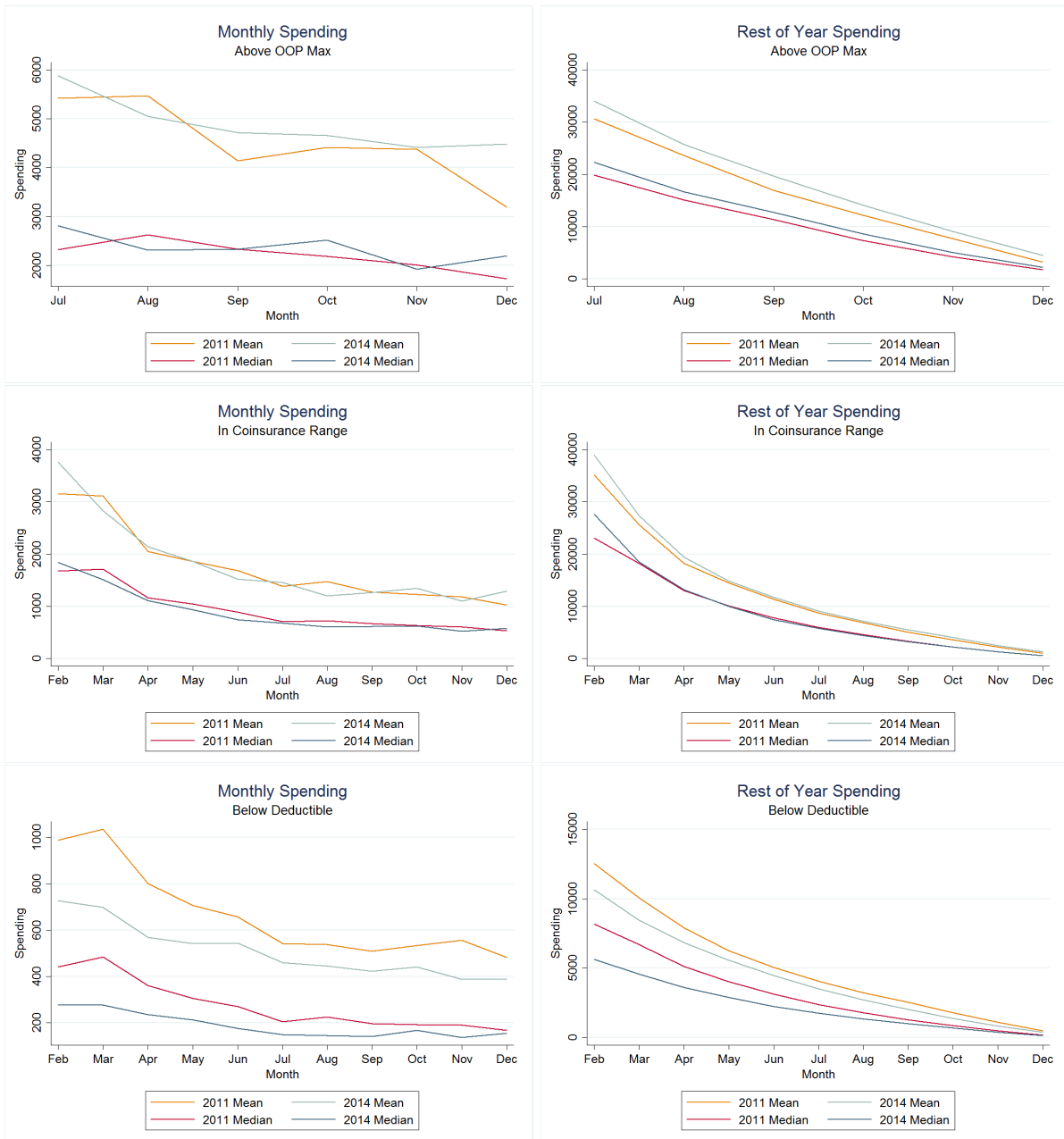
Figure 9: This figure presents descriptive results for 2014, comparing incremental spending in that year by plan arm to spending by equivalent quantiles of consumers in 2011. These figures are directly analogous to those presented earlier in this section, describing how incremental spending in 2013 compares to that in 2011. The left panels present incremental spending for the next month conditional on start of month plan arm, while the right panels present incremental spending for the rest of the year.

Figure 10: This figure presents descriptive results for 2014, and examines how predictably sick consumers under the deductible at the beginning of a month reduce incremental spending. These figures are dire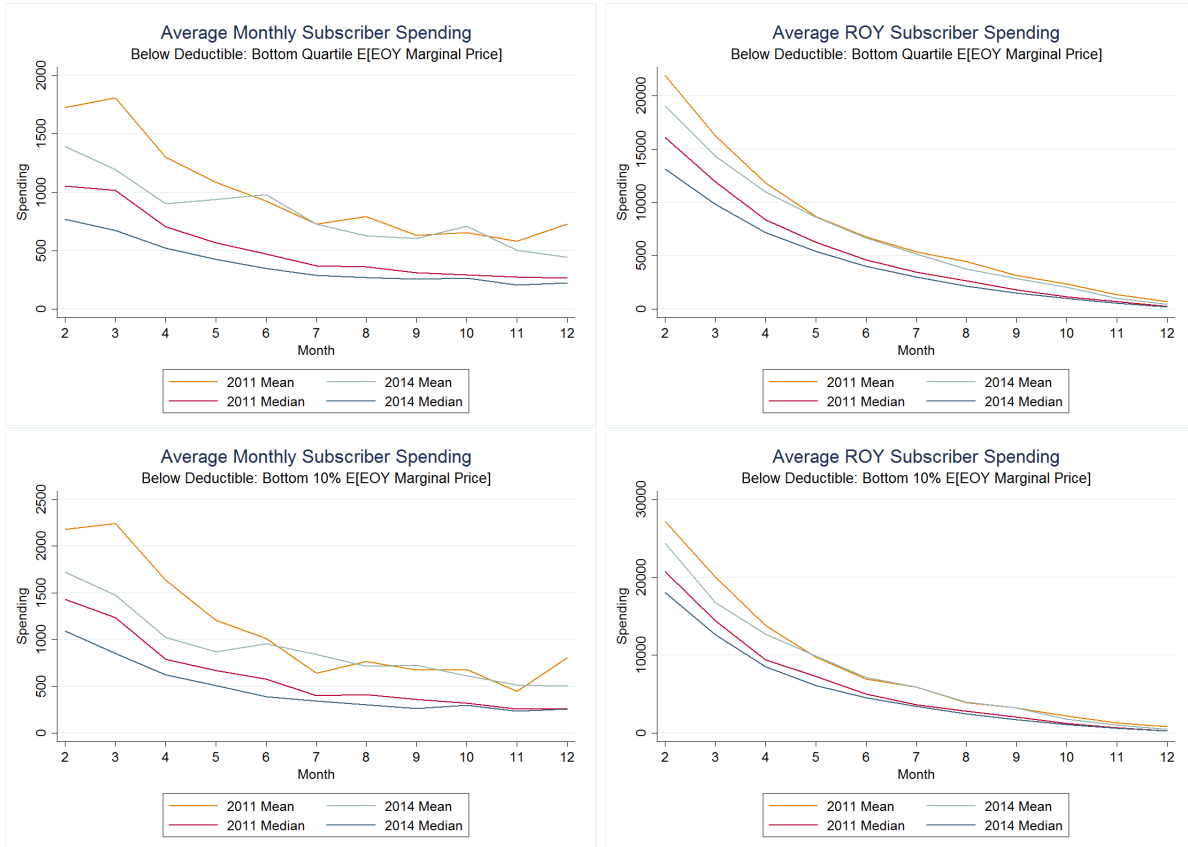ctly analogous to those presented earlier in this section, describing how incremental spending in 2013 compares to that in 2011. The left panels present incremental spending for the next month conditional on start of month plan arm, while the right panels present incremental spending for the rest of the year.

Table 11 illustrates that in 2014, as in 2013, essentially all the spending reductions during the year come from consumers spending incrementally less when they start a month under the deductible, relative to their 2011 comparison cohorts. In fact, in 2014 consumers slightly increase spending relative to 2011 when in either the coinsurance arm or out-of-pocket maximum arm, implying that spending reductions coming from when consumers are under the deductible actually comprise 120% of total spending reductions for 2014 relative to 2011.

5.1 Regression Analysis

The descriptive analysis in this section presents strong evidence that consumers (i) heavily respond to spot prices, even when they are predictably sick, and that (ii) reduced incremental spending under the deductible accounts for essentially all treatment year spending reductions. Now, we perform a series of regression analyses to deal with underlying correlations in the data and more precisely quantify the impacts of different non-linear contract prices on total medical spending. Specifically, we include (i) spot prices (ii) shadow prices and (iii) prior year-end marginal prices

in one regression framework, and determine which of these prices is most important for predicting consumer spending reductions in the 2013-2014 treatment years.

Our primary regression studies incremental monthly spending for families in the 2013 and 2014 treatment years relative to their 2011 comparison quantile groups (as defined earlier in this section). Our main specification is:

$$
\begin{aligned}
\log(Y_{i,t}+1) \;=\; & \alpha + [\beta_e P_{i,t}^e + \beta_s P_{i,t}^s + \beta_L P_i^L] + [\theta_e P_{i,t}^e + \theta_s P_{i,t}^s + \theta_L P_i^L]I_{2013-2014} \\
& + [\kappa_e P_{i,t}^e + \kappa_s P_{i,t}^s + \kappa_L P_i^L]I_{2014} + \gamma_H H_i + \gamma_X X_i + \gamma_{Y^l}\Sigma_{l=1}^2 \log(Y_{i,t-l}+1) \\
& + \Sigma_{t\in T}\gamma_t I_t + \Sigma_{Y\in TY}\gamma_Y I_Y + \epsilon_{i,t}
\end{aligned}
$$

Here, $Y_{i,t}$ is total monthly incremental spending (insurer + out-of-pocket) in month t for a given family. P^k are the three prices defined at the family-level for each month t. The regression includes observations from one control year, 2011, and both treatment years, 2013 and 2014. Importantly, we define counterfactual HDHP non-linear contract prices for the 2011 control population using the same quantile comparison method discussed earlier in this section: this means that conditional on (H, X) we match deciles of M_t in 2011 to comparable deciles in 2013 and 2014, and assign the 2011 consumers the same prices as those treatment year consumers. This mimics the approach used in the descriptive analysis comparing treatment consumers to comparable control consumers, leveraging the cross-sectional assumptions described earlier. The regressions control for ex ante family health status (adding up individual family spending predictions), demographics (ages, family size, gender mixture), and calendar month and year fixed effects. Additionally, the regressions control for lagged spending from each of the prior two months, to deal with spending autocorrelation.

Our primary parameters of interest are the interaction of price measures and treatment years. θ_k coefficients gives an estimate for the % reduction in incremental monthly spending as a function of each kind of non-linear contract price in the treatment years. For example, $\theta_k = 0$ would imply that, conditional on health status, demographics, and other prices, families do not change spending in response to changes in P^k. Negative values imply that consumers reduce spending by $\theta_k\%$ in response to a price change of 1 (i.e. 100%). The κ_k parameters are also of interest, and measure whether consumers' responses to the different non-linear contract prices change in 2014, after they have already been enrolled in the HDHP for a full year. By including prices directly in the regression in the period prior to the introduction of the HDHP we can flexibly capture any mechanical correlations between estimates prices and spending.[43]

When we implement these regressions, we use indicator variables to represent various values of each P^k, rather than continuous measures of those prices. For spot prices and prior year-end marginal prices this is natural, since 0,.1, and 1 are the only possible values for these prices.

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[43]Table A14 motivates this regression analysis by illustrating the underlying correlations in these three prices at different months during the calendar years in 2013 and 2014. All prices are positively correlated in all months considered. In February, there are relatively low correlations between spot prices and shadow prices (0.285), and spot prices and the previous end-year marginal price (0.131). These correlations increase over the calendar year, equal to 0.668 and 0.315 respectively in July, and 0.857 and 0.381 respectively in December. The correlation between shadow prices and prior year-end prices decreases as the year goes on and equals 0.627 in February, 0.513 in July, and 0.437 in December.

For those two prices, we omit the value of 0 (consumers passed the out-of-pocket maximum) and include two dummies for starting a month (ending the year) in the deductible arm or coinsurance arm. For the shadow price in the current year (expected end-of-year marginal price) our main specification considers quintiles of this price, described in our results table, though we also examine a specification with ventiles. We note that, as discussed earlier, we use instrumented versions of expected end-of-year prices in the treatment years to deal with the issue of reverse causality (where cohort spending reductions imply changes to the expected end-of-year prices).[44] Finally, it is important to note that if our measures of expected future prices are noisy projections of true shadow prices, this will reduce the magnitude of our expected price coefficients (biased towards 0) which works against the results we eventually find.

Table 12 presents the results from our primary specification, along with five robustness analyses. The regression has 749,705 observations and an R^2 of 0.381. The table presents the main coefficients of interest. Our primary specification shows that on average in 2013, consumers under the deductible reduce incremental monthly spending by 42.2%, significant at the 1% level, *controlling for their shadow prices and prior year-end marginal price.* This change is relative to the the pooled population with the 2011 control group and treatment year consumers who have passed the out-of-pocket maximum. This treatment effect for 2014 is not statistically different from that for 2013, with a small standard error of 0.0374 for this difference. Consumers in the coinsurance region at the start of a month in 2013 reduce incremental spending by 14.4% on average, controlling for everything else, with this 2013 effect statistically the same as the 2014 effect.

Consumers' responses to their true shadow prices are much lower in magnitude: for example, consumers in the 4th highest shadow price quintile (0.275, 0.730) only reduce incremental spending by 6.66%, statistically significant at 1%, relative the control group consumers (and omitted 2013 OOP-max consumers) who have shadow prices of 0. These results are similar across the quintiles, except for quintile 5 (highest shadow prices) which shows *higher* relative spending, likely due to the presence of many consumers spending 0 in this group regardless of the price regime. The coefficients which examine the 2014 differential for these treatment effects are positive and small, suggesting that consumers are not learning in the second-year that the shadow prices are the true prices they should consider (if so, these coefficients would be negative).

The coefficient on prior year-end marginal price is small and positive for 2013 when 2012 end of year spending would have placed the consumer under the HDHP deductible. This suggests that this is not a meaningful driver of spending reductions in 2013. However, the coefficient examining the 2014 differential is -0.0962, statistically significant at 1%, suggesting that consumers in 2014 who ended 2013 under the deductible reduce incremental monthly spending by 10% in 2014. This suggests that, to the extent that consumers learned about the HDHP from 2013 to

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[44]To do this we use projected end-of-year prices for comparable quantiles of consumers in 2010, prior to the forced HDHP switch (and prior to the observations included in the regression). These prices are correlated with those from equivalent consumers post-switch, but not correlated with changes to incremental spending that result post-switch. It is important to note that these prices will be biased slightly lower than actual 2013 and 2014 shadow prices (because spending in the pre-period is higher). However, because the change in total spending implies only small changes in these shadow prices, this should not have a meaningful impact on our results.

2014, they learned based on their prior-year end-of-year price realization, rather than through an understanding of the more complex shadow price. Ending the prior year in the coinsurance arm does not have a meaningful impact on next year spending next year, either in 2013 or 2014.

Table 12 also presents five regression specification that change the primary specification to examine robustness to different versions. The specification in the second column replaces shadow price quintiles with ventiles, to see if finer and more precise measures of shadow prices impact our results. The results are very similar between this specification and the primary one just described (ventile coefficients are presented in Appendix A, for parsimony). The third column omits, prior year-end marginal price from the regression, and shows that the results are unchanged, though the R^2 is slightly lower. The fourth column omits the shadow price measures, and shows that the primary specification results are essentially unchanged otherwise. The fifth column omits health controls and prior month spending controls. Removing these variables reduces the R^2 to 0.349, showing that these variables meaningfully impact the predictive ability of the regression. The spot price coefficients increase in magnitude, while all other price coefficients remain similar. The sixth and final column examines the primary regression run for 2013 only, and, not surprisingly, shows results similar to the primary specification.

In addition to the descriptive analysis and the regression results presented thus far we also estimate a set of penalized regression models, specifically a LASSO model.[45] Following the approach employed by Backus et al. (2015), we can flexibly capture the many potential relationships between prices and subsequent spending as well as potential correlations amongst dependent variables. The results, which we present in the Appendix, further support the key finding that the primary impact is for a spot price of 1.

Taken in sum, these regression results illustrate that relative to shadow prices and last year's ending marginal price, spot prices are the primary driver of the spending reductions we document. Shadow prices have a limited impact on spending reductions. Consumers have limited responses to the prior year's end-of-year marginal price in the first HDHP plan year, 2013, but increasingly respond to that price in 2014, the second year of HDHP enrollment. Together with the descriptive results presented earlier in this section, it is clear that, at least in the first two years of HDHP enrollment, consumers respond to spot prices (or something correlated with spot prices) much more so than they do to true shadow prices or the prior year's marginal price.

6   Conclusion

In this paper we studied the health care decisions and spending behavior for a large population of employees (and their dependents) who were forced into high-deductible insurance after years of having access to completely free health care. The change caused a spending drop between 11.79% and 13.80% of the approximately $740 million in yearly firm spending on health care prior to the switch. These spending reductions came across the spectrum of health care service categories.

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[45]LASSO is equivalent to OLS (a linear model minimizing squared residuals) with an additional constraint on the sum of the absolute values of the coefficients.

Non-Linear Contract
Incremental Spending Regressions

Variable	Primary	Shadow P Ventiles	No Prior Year MP	No Shadow Price	Fewer Controls	2013 Only
Spot Price X Treatment Year						
1 (Deductible)	-0.422***	-0.414***	-0.434***	-0.347***	-0.525***	-0.411***
	(0.0385)	(0.0458)	(0.0384)	(0.0328)	(0.0395)	(0.0386)
1 (Deductible X 2014)	-0.0547	-0.0727	-0.0671*	0.0323	-0.0860**	–
	(0.0374)	(0.0443)	(0.0372)	(0.0318)	(0.0860)	–
0.1 (Coinsurance)	-0.144***	-0.0938**	-0.143***	-0.117***	-0.181***	-0.139***
	(0.0377)	(0.0401)	(0.0335)	(0.0325)	(0.0346)	(0.0337)
0.1 (Coinsurance X 2014)	-0.0197	-0.0416	-0.0331	-0.001	-0.0314	–
	(0.0328)	(0.0390)	(0.0326)	(0.0307)	(0.0336)	–
Shadow Price X Treatment Yr.						
Quintile 2 – [0.089,0.100]	-0.0570***	$--^a$	-0.0655***	–	-0.0773***	-0.0597***
	(0.0217)	$--^a$	(0.0214)	–	(0.0222)	(0.0219)
Quintile 2 X 2014	0.0424*	$--^a$	0.0211	–	0.0456	–
	(0.0217)	$--^a$	(0.0214)	–	(0.0223)	–
Quintile 3 – [0.100,0.2755]	-0.0424*	$--^a$	-0.0443	–	-0.0479*	-0.0564***
	(0.0255)	$--^a$	(0.0249)	–	(0.0261)	(0.0262)
Quintile 3 X 2014	0.0549**	$--^a$	0.0253	–	0.0615*	–
	(0.0260)	$--^a$	(0.0256)	–	(0.0267)	–
Quintile 4 – [0.2756,0.7303]	-0.0666***	$--^a$	-0.0381	–	-0.0715**	-0.0513*
	(0.0294)	$--^a$	(0.0285)	–	(0.0301)	(0.0311)
Quintile 4 X 2014	0.106***	$--^a$	0.0196	–	0.115***	–
	(0.0292)	$--^a$	(0.0283)	–	(0.0300)	–
Quintile 5 – [0.7304,1]	0.135***	$--^a$	0.205***	–	0.167***	0.160***
	(0.0312)	$--^a$	(0.0288)	–	(0.0320)	(0.0355)
Quintile 5 X 2014	0.0967***	$--^a$	-0.0114	–	0.109***	–
	(0.0307)	$--^a$	(0.0284)	–	(0.0315)	–
Prior Yr. End MP X Treatment Yr.						
1 (Deductible)	0.0657***	0.0509*	–	0.0948***	0.0516*	0.0607
	(0.0262)	(0.0269)	–	(0.0244)	(0.0268)	(0.0384)
1 (Deductible X 2014)	-0.0962***	-0.0822***	–	-0.0569**	-0.0786***	–
	(0.0254)	(0.0260)	–	(0.0236)	(0.0260)	–
0.1 (Coinsurance)	-0.0333	-0.0308	–	-0.0497**	-0.0471**	-0.0384
	(0.0210)	(0.0216)	–	(0.0205)	(0.0215)	(0.0310)
0.1 (Coinsurance X 2014)	-0.0159	-0.0102	–	0.0283	-0.0181	–
	(0.0205)	(0.0216)	–	(0.0200)	(0.0210)	–
Demographics & Seasonality	YES	YES	YES	YES	YES	YES
Prior Month Spend Controls	YES	YES	YES	YES	NO	YES
Health Controls	YES	YES	YES	YES	NO	YES
Observations	749,705	749,705	749,705	749,705	749,705	499,796
R^2	0.381	0.383	0.374	0.371	0.349	0.382

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

a Shadow price ventile coefficients displayed in Table A10 in Appendix A

Table 12: Results for regressions examining consumer responses to non-linear contract prices in the HDHP.

We investigated whether spending reductions came from (i) consumer price shopping for cheaper providers (ii) quantity reductions or (iii) substitution across procedures by consumers. We clearly documented that spending reductions were due almost entirely to consumer quantity reductions across a broad range of services, including some that were likely of high value in terms of health and potential to avoid future costs. Consumers did not shift to cheaper providers, either immediately in the first year post-switch or afterwards in the second year.

A meaningful portion of all spending reductions came from well-off consumers who were predictably sick, implying that the true marginal prices they faced under high-deductible care were actually quite low. We investigated consumers' responses to the different potential prices they might perceive in the non-linear high-deductible insurance contract to help explain the puzzle of why these consumers reduce spending. To do this we leveraged a unique feature of our environment, namely that we observe a large population of consumers in completely free health care (with no price dynamics) in the pre-period, and that same population of consumers in the post-period as prices are more complex and evolve over time. We developed a framework to conduct both descriptive and regression-based analysis to study how incremental consumer spending during the calendar year responds to (i) spot prices (ii) true shadow prices (expected end-of-year marginal prices) and (iii) the marginal price implied by their previous year's total spending.

We found that almost all spending reductions during the year occurred while consumers were still under the deductible, despite the fact that the majority of incremental spending occurs for consumers that have already passed the deductible. Moreover, about 30% of *all* spending reductions come from consumers in months when they (i) began that month under the deductible but (ii) were predictably sick, in the sense that they had very low shadow prices for health care. Once these consumers (predictably) reached the coinsurance arm and out-of-pocket maximum arms of the non-linear contract, they did not reduce spending further. These spending patterns are almost identical for 2014, implying that consumers did not learn to respond to the true shadow prices of care by the second-year of enrollment in high-deductible health care. Regression analysis that controls for health status, demographics, and recent months' health spending shows that consumers reduce spending by 42.2% when under the deductible, controlling for both their shadow prices and last year's end-of-year marginal price. The regressions reveal that consumers do reduce relative spending by 10% in 2014 when they ended 2013 under the deductible. This suggests that while consumers may not respond to their true shadow price of care in the second-year, they do respond somewhat to their price experience in the prior year.

By revisiting a well studied topic using new data we provide, to our knowledge, the most comprehensive assessment of consumer price elasticity of demand in an employer-sponsored insurance population since the RAND Health Insurance Experiment.[46] We assess not only *whether* consumers reduced spending but *how*, leading to insights with potentially important normative implications.

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[46]We note that the recent Oregon Health Insurance experiment provides a detailed analysis of the price responsiveness of the relatively poor and sick Oregon Medicaid population. We see our results as complementary in that the two studies cover the majority of the populations of interest in considering health policy options: prime age workers and their families receiving coverage from an employer (or in principal on an insurance exchange) and Medicaid. Both studies investigate mechanisms underlying price responsiveness, with some, but certainly not full overlap.

We study an environment with relatively educated, high-income consumers who have access to a price shopping tool that they have been primed to use. Yet, we find that price shopping is not an important component of the spending reductions resulting from the switch to high-deductible care and, instead, that outright health care quantity reductions across the spectrum of services drives those reductions. This suggests that the nature of those quantity reductions is crucial, in the current climate, for assessing the welfare impact of increased cost-sharing [see Baicker et al. (2013)]. We document similar reductions in care that is likely valuable (e.g. preventive care) and care that is potentially wasteful (e.g. imaging services). We believe that a comprehensive assessment of whether such quantity reductions are welfare increasing on net is an important path for future research.[47] Additionally, we believe that further research on the positive and normative implications of different "value-based" contract designs [see, e.g., Chernew et al. (2007)] is crucial to assess the degree to which tailoring out-of-pocket payments to specific health behaviors can drive purchasing value. While it is clear that such contracts can improve on designs that lump all services together, it is less clear how specific such contracts can be before they become too complex for consumers to effectively navigate. If the effectiveness of such contracts is limited by their inherent complexity, supply-side policies such as the move towards Accountable Care Organizations (ACOs) may be a more effective mechanism to efficiently cut back on high cost, low value care than demand-side policies such as raising deductibles.

Our results also suggest the typical structure of non-linear health insurance contracts, with decreasing marginal prices throughout the year, reduces medical spending and consumption and may yield dramatically different behavior relative to plans that cover the same proportion of overall population expenditures but have flatter structures throughout the year. This creates a challenge for employers and exchange regulators: highly non-linear contracts, such as a catastrophic contract with a large deductible that transitions directly to a zero marginal price stop-loss, will help control spending and protect consumers from large financial risks, relative to flatter contracts, but may also discourage the use of valuable services(along with wasteful services). For example, a transition to decreasing non-linear tariffs in Medicare Part D may reduce overall spending and better protect consumers from financial risk, but may also discourage adherence to important medications [see, e.g., Einav et al. (2013a)]. We believe that a careful empirical investigation of optimal non-linear contract design in the context of these responses to different price signals, building on work such as Vera-Hernandez (2003), is a valuable avenue for future research.

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[47]Most current studies that consider health outcomes are limited in the outcomes they (i) can measure and (ii) are powered to identify the effects for. Studies that exist typically distill the multifaceted nature of health outcomes down to simple measures like mortality. Furthermore, even in relatively sick populations outcomes like mortality require expensive trials with large sample sizes (e.g. the RAND and Oregon HIEs). We believe that analysis that presents interim signals on the value of health care consumed (or foregone), such as ours, is important for making progress on assessing the normative impact of increased cost-sharing, while comprehensively assessing the health implications of the behaviors we document is a challenge for future work.

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A   Appendix: Additional Analysis

This appendix supplements the main text with additional analyses and robustness checks. It is organized the same way as the main body of the paper to provide easy navigation.

A.1   Primary Sample Construction

The main sample we use throughout the paper is constructed so as to ensure we can analyze long-term trends in spending. We constructed a similar sample using weaker restrictions to show that our sample restrictions are innocuous in terms of their effects on the final result. Our primary sample is restricted to only include employees who were enrolled in a health insurance plan at the firm for all years between 2009 and 2014, the entire span of our data. Our alternate sample is only restricted to employees who were enrolled between 2011 and 2013, which includes employees who may have left the firm in 2014, or joined it in 2009 or 2010. Summary statistics for our main sample and this alternative are given in the first two columns of Table A1. This new sample includes approximately 8,000 additional employees (primarily driven by a set of layoffs in 2014) and 10,000 additional dependents. These excluded employees are relatively younger, and have smaller families (mostly those employees who joined the first during 2009 or 2010), but the overall mix of ages among them and their dependents changes only slightly. Most importantly, the distribution of health spending is nearly identical.

Another concern with our approach is that, since employees were aware of the policy change well in advance, they might make the decision to leave the firm in advance of being forced into a health insurance plan with cost-sharing. In particular, one might expect these employees to be relatively sicker, which might induce a selection bias into our results. To examine this, we look at employees who exited the firm in 2012, the year before the change. Summary statistics for this group of 1,153 employees are given in the third column of Table A1. This group of employees and their dependents does differ somewhat on demographic variables. Moreover, on average, this group spends approximately $700 more in 2012 than individuals in our main sample. However, this difference seems to be driven by the upper tail of a small number of individuals, as the medians of the two spending distributions are nearly identical, and the 75th percentiles are different by a minor amount.

Given these similarities, we feel comfortable using our main sample restrictions throughout the paper.

A.2   Intertemporal Substitution Analysis

In our analysis, we measure the extent to which employees increase spending in 2012 above expectations by substituting care that would otherwise have been obtained in the future if not for the policy change. To measure this 'excess mass', we first try to predict from prior years what spending would have been during 2012, then measure the disparity. We run a regression as described in the main text in Section 3, for which the results are given in Table A2. We then calculate the

Sample Demographics

	Primary Sample	Alternate Sample	2012 Exiting Employees
N - Employees	22,719	31,042	1,153
N - Emp. & Dep.	76,759	95,224	3,180
Enrollment in PPO in 2012	100%	100%	100%
Gender - Employees (% Male)	77.3%	76.8%	57.8%
Gender - Emp. & Dep.	51.4%	48.8%	41.4%
Age, 2012 - Employees			
18-29	4.3%	7.0%	5.9%
30-54	91.4%	88.2%	77.0%
≥ 55	4.3%	4.8%	6.4%
Age, 2012 - Emp.& Dep.			
< 18	36.1%	33.2%	24.8%
18-29	8.8%	9.6%	10.9%
30-54	52.0%	48.9%	42.0%
≥ 55	2.8%	2.9%	3.9%
Income, 2012			
Tier 1 (< $75K)	2.0%	1.8%	1.9%
Tier 2 ($75K-$100K)	5.3%	5.8%	7.8%
Tier 3 ($100K-$125K)	28.5%	31.1%	30.8%
Tier 4 ($125K-$150K)	36.2%	33.9%	28.2%
Tier 5 ($150K-$175K)	15.9%	14.2%	12.0%
Tier 6 ($175K-$200K)	6.7%	5.9%	3.9%
Tier 7 ($200K-$225K)	2.8%	2.5%	1.6%
Tier 8 ($225K-$250K)	0.9%	0.8%	0.6%
Tier 9 (> $250K)	1.0%	0.9%	0.4%
Family Size, 2012			
1	16.1%	18.4%	15.2%
2	17.9%	18.7%	32.4%
3+	65.9%	62.9%	52.4%
Individual Spending, 2012			
Mean	$5,223	$5,375	$5,921
25th Percentile	$631	$645	$533
Median	$1,795	$1,817	$1,796
75th Percentile	$4,827	$4,890	$5,151
95th Percentile	$18,810	$19,141	$21,986
99th Percentile	$52,360	$53,239	$59,481

Table A1: This table presents summary demographic statistics for (i) our primary sample, which is restricted to employees present over the time horizon 2009-2014, and their dependents; and (ii) an alternate sample, which is only restricted to employees present over the time horizon 2011-2013. When relevant, statistics for the primary sample are presented for the year 2012.

Regression Results

Variable	Coefficient
Months Since Jan. 2009	0.442
February	-32.37
March	15.28
April	-11.07
May	-11.90
June	-5.87
July	-32.34
August	-20.96
September	-31.93
October	-19.79
November	-22.54
December	-27.71

Table A2: This table presents coefficients from the regression model used to measure excess mass.

excess mass as the difference between the true mean monthly individual spending amount and the predicted level. This measurement of excess mass is given in Table A3.

We note that, starting in December, excess mass is positive and high for December, November, and October (the three months with the largest excess mass among months in 2012), before it drops down to nearly zero in September. There are some other outlier months across 2012 (March and August both have unusually high spending levels), however, as shown in Figure 3, the number of claims in those months is fairly reasonable relative to the trend. Careful investigation of those months (which cannot be shown due to individual privacy issues) uncovers that spikes in mean spending in those two months are primarily driven by a very small handful of unusually high-cost consumers. We take these combined trends as evidence that the majority of intertemporal substitution behavior is coming from care substituted into the last three months of 2012.

One issue is that deviations from trend can occur both because of intertemporal substitution, as well as because of some nonzero draw of the unobservable idiosyncratic error term, $\bar{\epsilon}_t$. To account for our uncertainty over this term, we construct a confidence interval around our excess mass computation. We note that the mean squared error (MSE) of a regression is a consistent estimator of the variance of $\bar{\epsilon}$ in our model. Assuming that errors are not serially correlated, the standard deviation of the sum of the error terms for October, November, and December is $\sqrt{3 \cdot MSE}$, which in our case is approximately equal to 26.16. We multiply this term by 1.96 to get the 95% confidence interval for excess mass used in Table 4.

A.3 Early Switcher Difference-In-Differences

Our primary sample includes individuals who were in the PPO prior to the forced switch, and thus those that were actively forced to join the HDHP in 2013. As discussed in Section 2, approximately 85% of consumers at the firm fall into this category and were forced to switch into the HDHP.

Excess Mass	
Month	Excess Mass
December	85.83
November	41.57
October	37.83
September	-2.15
August	20.91
July	12.21
January to June (average)	0.34

Table A3: This table presents the computed excess mass for each month in the second half of 2012.

In this section, we use consumers who voluntarily switched to the HDHP earlier, in either 2011 or 2012, as a control group for the treatment effect analysis just described. By incorporating an additional control group, we estimate a differences-in-differences specification where we compare the change in spending from 2012 to 2013 in our primary sample, where consumers were forced to switch plans, to the control group where consumers were enrolled in the HDHP in both years. We focus on the 2012-2013 two-year period for this analysis to remove confounds that could manifest over longer time horizons: as shown in the earlier analysis, 2011 statistics are similar to 2012, and 2013 similar to 2014.

Figure A1 plots the mean individual monthly spending from 2009-2014 for (i) our primary sample (ii) individuals who switched to the HDHP at the beginning of 2011 (6,255 individuals) and (iii) individuals who switched to the HDHP at the beginning of 2012 (5,528 individuals). We note that the early switcher samples are balanced, in the sense that employees are present from 2009-2014, and that prior to joining the HDHP these employees and their dependents were enrolled in the PPO.

The figure clearly illustrates that early switchers are, on average, healthier than those in our primary sample who are forced to switch for 2013. In addition, the figure shows a relative drop for mean spending for 2011 switchers in 2011, for 2012 switchers in 2012, and for 2013 forced switchers in 2013. Figure A12 plots median spending over time for these different cohorts, and shows the exact same pattern with slightly less noise since the median is a more robust statistic.

The fact that early switchers are healthier suggests that, in order to use them as a meaningful comparison group for the primary sample, we need to form a modified primary sample that matches the population of early switchers based on health status. For this analysis, we pool the two groups of early switchers (2011 and 2012) since we will be analyzing the spending change from 2012-2013. To measure health status in a predictive sense, we leverage the Johns Hopkins ACG software, which assigns each individual a predictive score, based on their past year of detailed claims data, for the upcoming health year. This score reflects the type of diagnoses that an individual had in the past year, along with their age and gender, rather than relying on past expenditures alone.[48]

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[48]See e.g. Handel (2013), Handel and Kolstad (2015) or Carlin and Town (2009) for a more in depth explanation of predictive ACG measures and their use in economics research. See http://acg.jhsph.org/index.php/the-acg-system-advantage/predictive-models for further technical details on these predictive algorithms.
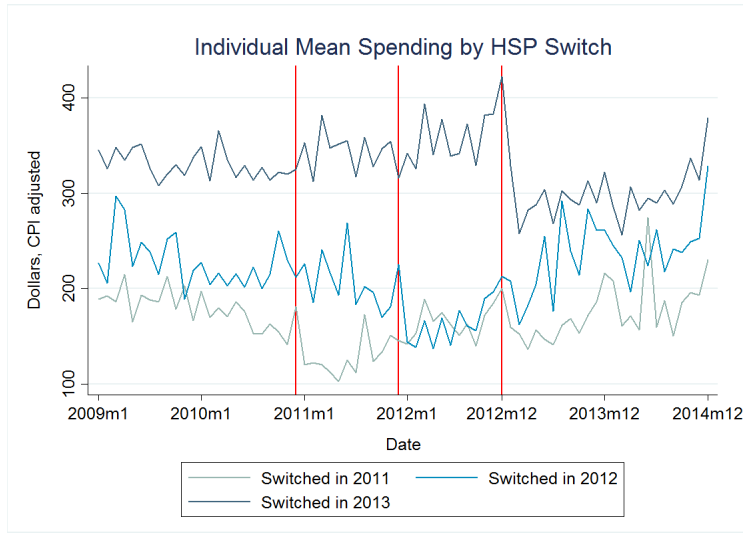
Figure A1: This figure plots mean monthly spending over time for consumers who (i) are in our primary sample (and thus were forced to switch to the high-deductible plan in 2013) (ii) those who elected to switch early to the HDHP in 2012 and (iii) those who elected to switch early to the HDHP in 2011 (and stayed in that plan over time).
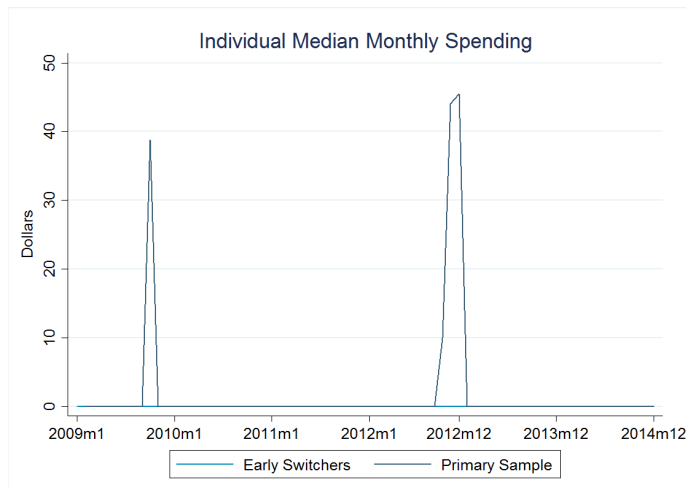

Figure A2: This figure plots median monthly individual spending over time for consumers who (i) are in our pooled sample of early switchers and (ii) are in our weighted primarily sample through 2013, matched to the early switcher sample based on the health status distribution.
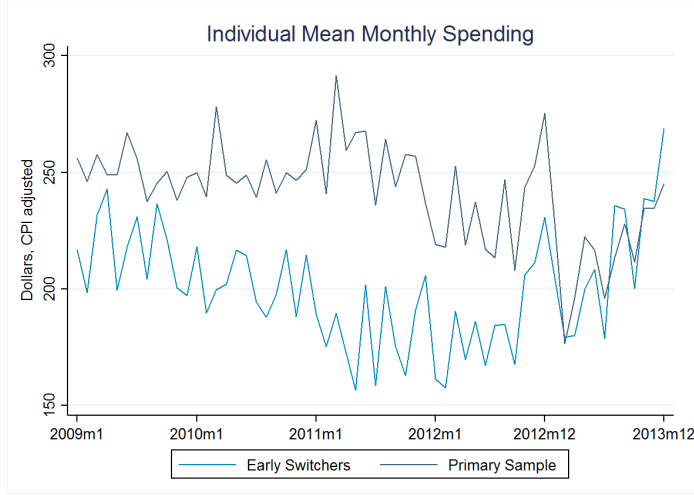
Figure A3: This figure plots mean monthly individual spending over time for consumers who (i) are in our pooled sample of early switchers and (ii) are in our weighted primarily sample through 2013, matched to the early switcher sample based on the health status distribution.

We quantify the health status of early switchers with the observed distribution of individual-level ACG health status predictions for the year 2012. We characterize this distribution with ventiles (20 equal sized buckets) of this predictive score, and weight the primary sample observations to match this distribution. Each ventile has, by definition, 5% of the early switcher sample. Thus, if 8% of the primary sample is contained in one of the early switcher ventiles, those individuals are weighted by $\frac{.05}{.08} = \frac{5}{8}$ in the weighted primary sample. We construct weights in this manner across the health status distribution to match the primary sample to the early switcher sample based on health status.

Figure A3 plots mean monthly individual-level spending for the pooled sample of early switchers and for our health-status weighted primary sample through 2013. The figure clearly illustrates that, prior to the switch in 2012, when the two samples are in different plans, the HDHP consumers spend approximately 25% less than PPO consumers. In 2013, when both groups are in the HDHP, they spend almost identically (which also indicates successful matching on health status). Column 4 in Table 4 presents the quantitative difference-in-differences 2012-2013 spending reduction due to the HDHP switch implied by this figure:

$$[y_{AS,2013}^{W\bar{P}S} - y_{AS,2012}^{W\bar{P}S}] - [y_{CPI,2013}^{ES^-} - y_{CPI,2012}^{ES^-}]$$

Here, $y_{M,T}^{\bar{S}}$ refers to mean individual spending in year T under model M for sample S. Model AS refers to the model with both anticipatory spending and age/CPI adjustments. Model CPI refers to the model adjusting for age/CPI adjustments.[49] Sample WPS refers to the weighted primary sample, while sample ES refers to the early switcher sample.

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[49]We adjust for anticipatory spending in the weighted primary sample, which switches for 2013, and not for the early switcher sample, which remains in the HDHP over these two years. Even if there is some anticipatory spending for some HDHP consumers in December in a given year, it should be the same cross-sectionally (detrended) in 2012 and 2013.

A.4 Additional Analysis of Treatment Effect Heterogeneity

In this section, we present a number of figures and graphs that provide more detail on heterogeneity in spending trends across a variety of categories. First, in Figures A4 and A5, we break down the highest quartile of ACG score into four subgroups, and show that we can observe spending responses to the policy change broadly across the top end of the sickness distribution. Figure A5 in particular shows that the median individual even in the 99th percentile of expected health risk reduces spending in the years following the change, despite the fact that these individuals should have no incentive to do so. Figure A6 breaks down spending reductions by the location where medical care was received, plotting spending in these categories over the entire timespan of our data. We see sharp reductions in office and ER visits, outpatient hospital care, and preventive care, with no real change in mental health spending or inpatient hospital care. Figure A7 shows additional cutbacks for prescription drugs, showing that cuts come from both branded and generic drugs.

Table A4 displays our 'excess mass' calculations, constructed as described in Appendix A.2. The first column shows the final excess mass calculation used in Table 5, while the second column gives the standard error for that calculation. The last three columns break down the excess mass for each month used in the data. We can see that most of the excess mass is driven by above-trend spending in December 2012, as nearly every category of spending results in a positive excess mass calculation for that month. Table A5 provides a version of our analysis in Table 5 where we compare the differences in spending patterns between 2012 and 2014, rather than 2012 and 2013. For most categories, the effects are qualitatively similar.

Finally, Table A6 presents an alternate version of our ACG quartile analysis from Table 5. In the initial analysis, we allow ACG scores for a given individual to vary over time in order to measure the treatment effect. In this table, we instead fix an individual's ACG score at one point (using their score constructed using either 2011 or 2012 claims data), and calculate their treatment effect over time. This method can suffer from mean reversion, where consumers with high scores previously due to chance may look as though they decrease spending later, which is why we do not use it for our main analysis. Presented here, we can see some evidence of this mean reversion, although it is not very strong relative to our treatment effects.

A.5 Additional Analysis of Price Shopping

We do a number of robustness checks on our analysis of consumer price shopping. The first is that we verify that the rankings of prices across providers within a class of procedures is constant over time. To do so, for each procedure-year pair, we assign each provider in our restricted provider-procedure-year set a ranking according to their price for that procedure-year. We then calculate Spearman's rank correlation coefficient for each consecutive pair of years. The result from this exercise is given in Table A7. For nearly all pairs, the coefficient is very strong, around 0.93. We view this as evidence supporting our modeling assumption that the rankings are approximately constant.
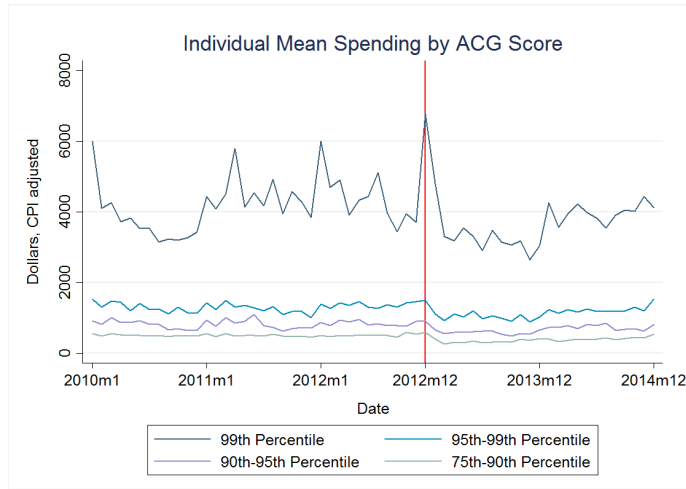
Figure A4: This figure plots adjusted mean spending for individuals in a given month, by ACG predictive health index bin (the index is calculated at the beginning of each calendar year). This graph divides individuals in the top quartile of the ACG index into smaller subgroups.

Figure A5: This figure plots adjusted median spending for individuals in a given month, by ACG predictive health index bin (the index is calculated at the beginning of each calendar year). This graph divides individuals in the top quartile of the ACG index into smaller subgroups.
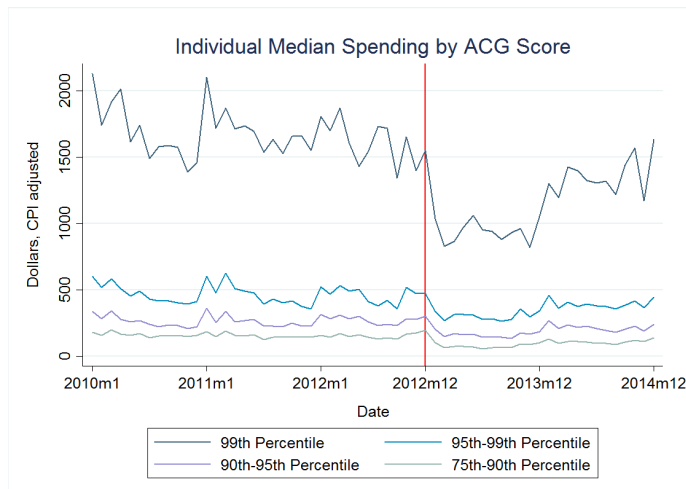
Figure A6: This figure plots mean medical spending for individuals in a given month, by the type of care, both adjusted and unadjusted for age and price trends. These categories are mutually exclusive, except for Preventive.

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Excess Mass Calculation

| | Total Excess Mass | Standard Error | Individual Month Calculations | | |
			October	November	December
Age 0-17	-85.51	12.09	-26.65	-43.50	-15.37
Age 18-29	-33.24	38.13	-20.89	-2.70	-9.65
Age 30-54	253.49	8.65	42.24	61.23	150.01
Age 55+	525.20	78.48	110.05	68.57	346.58
Income 0-100K	201.84	29.77	99.47	28.29	74.08
Income 100-150K	190.07	15.36	43.67	52.99	93.41
Income 150-200K	71.60	21.73	0.20	19.47	51.93
Income 200K+	126.37	23.98	51.14	28.09	47.14
Employee	243.51	9.75	46.09	46.36	151.06
Spouse	308.67	19.70	53.90	89.33	165.44
Dependent	-91.79	13.15	-32.01	-41.88	-17.90
ACG Quartile 1	0.12	7.72	-3.15	2.18	1.09
ACG Quartile 2	42.49	11.94	-9.33	18.68	33.14
ACG Quartile 3	101.35	11.69	29.46	-13.83	85.72
ACG Quartile 4	446.90	26.67	77.45	107.11	262.34
ACG Top 1%	139.48	664.99	-945.06	-1068.03	2152.57
0 Chronic Conditions	56.33	9.10	9.13	14.57	32.63
1-2 Chronic Conditions	118.64	16.04	10.94	5.75	101.94
3+ Chronic Conditions	985.15	65.44	102.65	165.03	717.47
Inpatient Hosp.	25.89	8.79	9.80	1.81	14.27
Outpatient Hosp.	48.37	3.70	8.05	15.95	24.38
ER	-1.40	0.69	-1.64	-1.20	1.44
Office Visit	12.48	1.02	2.56	4.04	5.88
RX	18.87	1.47	0.94	5.54	12.39
RX - Brand	11.93	1.05	-0.39	3.50	8.83
RX - Generic	1.82	0.58	0.06	0.35	1.42
Mental Health	-5.58	1.96	2.30	-4.63	-3.25
Preventive	11.52	1.15	1.96	3.58	5.99
Other	61.34	2.44	14.58	18.56	28.20

Table A4: This table gives the excess mass calculations (with their associated standard error) for each category of individual spending, calculated as detailed in Appendix A.2. These excess mass calculations are used in the construction of the final column of Table 5.

Heterogeneous HDHP
Spending Impact

	Group %	Spending %	2012 Mean Spending	(1) Nominal Spending	(2) CPI	(3) Anticipatory Spending
						Treatment Effect
Age 0-17	34.41	22.83	3465.65	-0.03	-0.11	-0.11*
Age 18-29	8.39	7.13	4442.77	-0.07	-0.15	-0.15*
Age 30-54	49.45	58.37	6164.59	-0.12	-0.19	[-0.09,-0.14]
Age 55+	2.65	5.60	11051.14	-0.07	-0.15	[-0.04,-0.09]
Income 0-100K	6.09	6.64	5701.99	-0.02	-0.10	[-0.01,-0.06]
Income 100-150K	61.34	61.19	5209.86	-0.09	-0.17	[-0.08,-0.12]
Income 150-200K	24.50	23.58	5026.86	-0.07	-0.14	[-0.11,-0.13]
Income 200K+	5.31	5.43	5340.94	-0.08	-0.16	[-0.10,-0.13]
Employee	31.66	33.54	5532.77	-0.07	-0.15	[-0.04,-0.09]
Spouse	22.85	32.79	7495.02	-0.12	-0.20	[-0.10,-0.15]
Dependent	40.38	27.61	3570.33	-0.02	-0.11	-0.11*
ACG Quartile 1	27.21	8.56	1643.56	-0.09	-0.17	-0.17*
ACG Quartile 2	22.63	12.24	2824.79	-0.29	-0.35	[-0.31,-0.33]
ACG Quartile 3	22.36	19.54	4564.51	-0.26	-0.32	[-0.27,-0.29]
ACG Quartile 4	22.69	53.59	12335.85	-0.02	-0.10	[-0.01,-0.06]
ACG Top 1%	0.69	8.80	66606.47	-0.05	-0.13	-0.13*
0 Chronic Conditions	59.76	36.65	3202.64	-0.07	-0.14	[-0.10,-0.12]
1-2 Chronic Conditions	31.34	43.46	7240.37	-0.04	-0.13	[-0.09,-0.11]
3+ Chronic Conditions	3.78	13.83	19093.35	0.02	-0.07	[0.06,0]
Inpatient		16.53	863.48	-0.13	-0.20	[-0.13,-0.16]
Outpatient Hosp.		18.08	944.16	-0.08	-0.15	[-0.03,-0.09]
ER		3.11	162.41	0.12	0.03	0.03*
Office Visit		7.62	397.86	-0.10	-0.18	[-0.10,-0.14]
RX		16.92	883.62	-0.01	-0.09	[-0.04,-0.07]
RX - Brand		12.23	638.83	-0.08	-0.16	[-0.11,-0.14]
RX - Generic		4.05	211.62	-0.17	-0.24	[-0.22,-0.23]
Mental Health		9.46	493.87	0.07	-0.02	-0.02*
Preventive		9.50	496.29	0.01	-0.07	[-0.02,-0.05]
Other		22.94	1198.08	-0.21	-0.27	[-0.15,-0.21]

Table A5: This table summarizes our descriptive evidence for the heterogeneous treatment effects of the forced HDHP switch, for estimates giving the effect between 2012 and 2014 (compared to Table 5's description of . The table presents the results for different (i) demographics (ii) health status measures and (iii) types of health services. The first column reports the % of people within a given demographic group or health status group for categories (i) and (ii), and the % of total spending a given service spending is for category (iii). The second column reports average mean individual yearly spending for categories (i) and (ii), and average mean individual spending for each type of service for category (iii). The second through fourth columns present, for each respective framework, the % change in spending (for each demographic group, or type of service) as a result of the forced HDHP switch from 2012 to 2013.
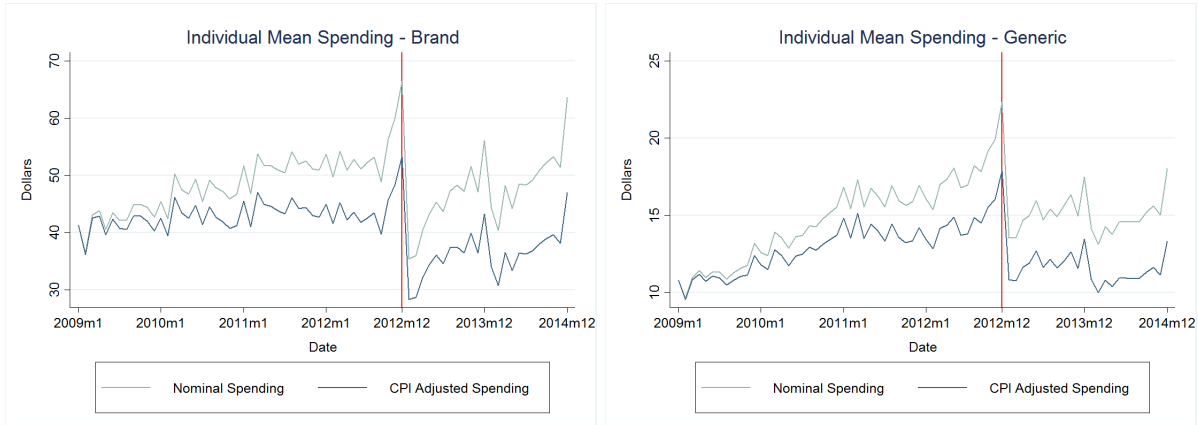
Figure A7: This figure plots mean prescription drug spending for individuals in a given month, for brand and generic drugs, both adjusted and unadjusted for age and price trends.

Heterogeneous HDHP
Spending Impact

	Group %	Spending %	2012 Mean Spending	Treatment Effect (1) Nominal Spending	(2) CPI	(3) Anticipatory Spending
2011 Quartile 1	23.86	7.59	1636.85	-0.26	-0.29	[-0.28,-0.28]
2011 Quartile 2	23.64	11.53	2592.70	-0.33	-0.36	[-0.33,-0.35]
2011 Quartile 3	23.60	20.03	4412.69	-0.37	-0.39	[-0.35,-0.37]
2011 Quartile 4	23.74	54.78	12051.12	-0.22	-0.25	[-0.16,-0.21]
2012 Quartile 1	32.29	10.99	1752.40	-0.24	-0.27	[-0.26,-0.27]
2012 Quartile 2	24.49	14.74	3209.34	-0.38	-0.40	[-0.34,-0.37]
2012 Quartile 3	19.07	19.15	5174.46	-0.36	-0.39	[-0.32,-0.35]
2012 Quartile 4	18.99	49.05	13617.06	-0.20	-0.24	[-0.15,-0.20]

Table A6: This table measures heterogeneous treatment effects by ACG quartile in two alternative ways.

We additionally perform a version of our price shopping analysis on new employees. The key reason for doing so is because a lack of price shopping in the short run that we observe in our data may be driven by pre-existing relationships between consumers and providers. These relationships may make it difficult to switch to a new provider, even if the previous provider is more expensive. We do this by taking the claims of new employees in 2012 and 2013. We use claims from these employees only for the year in which they were a new employee, and we compare these two cross-sections in the same way we compared pairs of years in our main analysis. The results are given in Table A8. Again, we see no evidence for price shopping, instead finding slight increases in prices achieved. The primary driver of differences in spending for new employees, as in our main sample, is quantity reductions.

Finally, we present our spending decomposition for each of the top 30 procedures with the highest share of spending at the firm, in Table A9. This table includes some of the procedures listed in Table 9. Due to space concerns, we present the decomposition only between 2012 and 2013. It

Years	Rank Correlation
2009-2010	0.9363
2010-2011	0.9370
2011-2012	0.9275
2012-2013	0.9321
2013-2014	0.9371

Table A7: This table gives Spearman's rank correlation coefficient for provider rankings in prices for a given procedure across year pairs in our data.

	$\Delta TS_{t+1,t}$	$PPI_{t+1,t}$	$PS_{t+1,t}$	$Q_{t+1,t}$
All Claims	-10.4%	1.3%	1.6%	-16.5%
Preventive w/ Diagnosis	-7.5%	1.8%	0.7%	-10.2%
Preventive Always	3.3%	6.8%	0.6%	-6.5%
Imaging	-22.2%	-0.1%	4.5%	-22.4%

Table A8: This table analyzes price shopping behavior, comparing new employees at the firm in 2012 to new employees in 2013.

is clear to see that very few procedures seem to exhibit meaningful consumer price shopping.

A.6 Additional Analysis of Responses to Non-Linear Contract

We present versions of our descriptive analysis of employee responses to the non-linear structure of the HDHP, where we instead use single employees, or employees with only a single dependent, in Figures A8 and A9. These figures replicate the analysis shown in Figures 5, 6, and 7 in the text for those populations. Incremental spending for the next month and for the rest of the following year is given for employee-month combinations in a given tier of the HDHP in 2013. These figures provide results that are qualitatively similar in nature to those for employees with two or more dependents.

A.7 LASSO Results

To demonstrate further that variation in end of year price does not explain spending differences, we turn to a method originally employed by Backus et al. (2015). We restructure our prior regression model (with all three prices) as a penalized linear model, specifically a LASSO model,[50] and estimate the model for different values for the coefficient constraint. As the LASSO coefficient size constraint binds more tightly, the solution algorithm will be forced to set some coefficients to zero. We use a stepwise regression model to focus on the set of constraint values that make the algorithm remove a variable from the model. It will begin with those variables that least explain variation in health spending. We think of this as a data-driven way to characterize the 'importance' of each of the price variables in explaining health spending choices. Furthermore, by estimating a penalized regression we can flexibly capture correlations between dependent variables, an advantage in our

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[50]LASSO is equivalent to OLS (a linear model minimizing squared residuals) with an additional constraint on the sum of the absolute values of the coefficients.
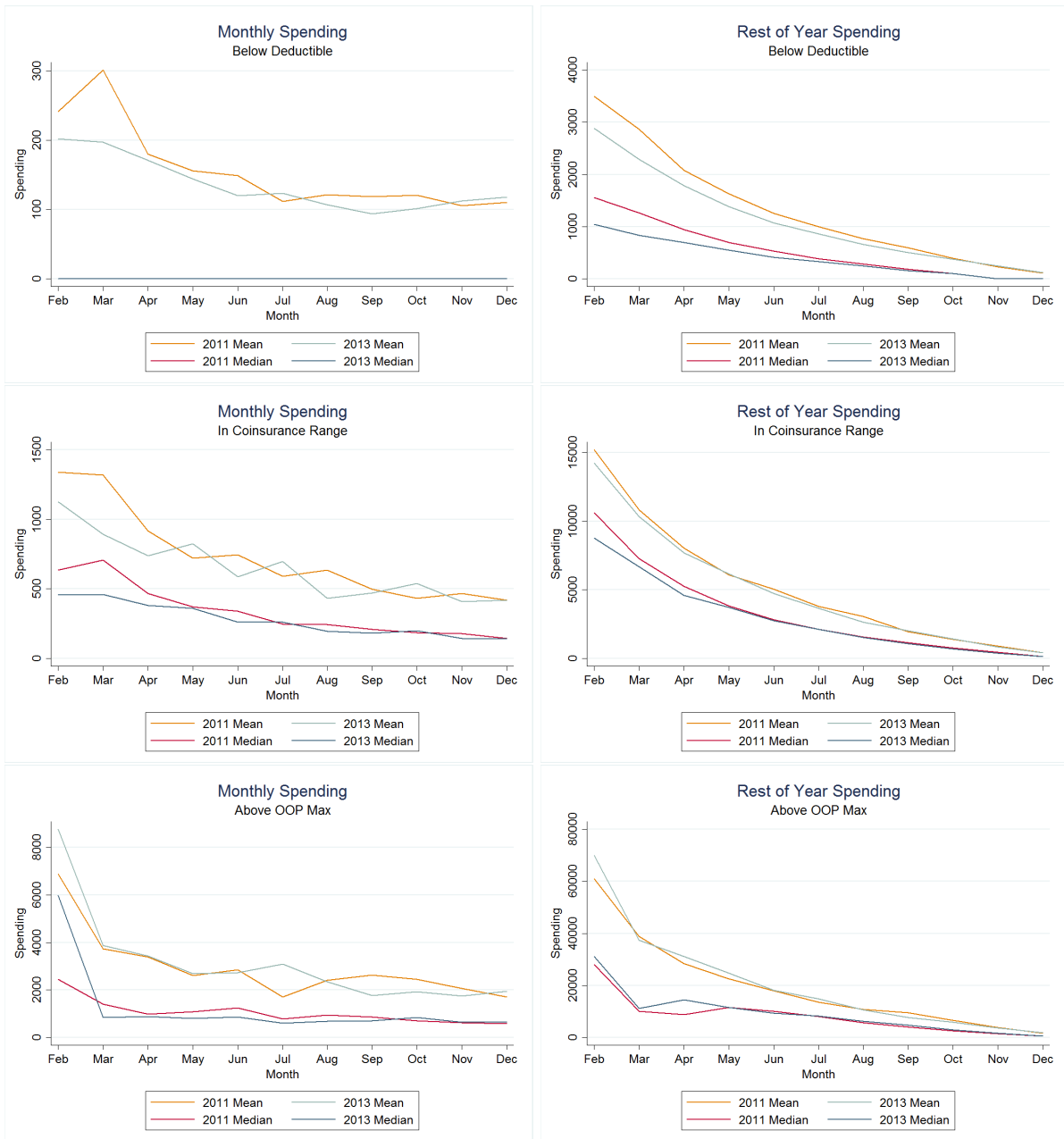
Figure A8: This figure shows incremental spending for employees who have passed the out-of-pocket maximum by the start of a given month in 2013, for single employees. The left side of the figure studies incremental spending for the next month, while the right side studies incremental spending for the rest of the year. This 2013 incremental spending is compared to 2011 incremental spending for the equivalent quantiles of consumers based on total yearly spending up to month t, M_t.
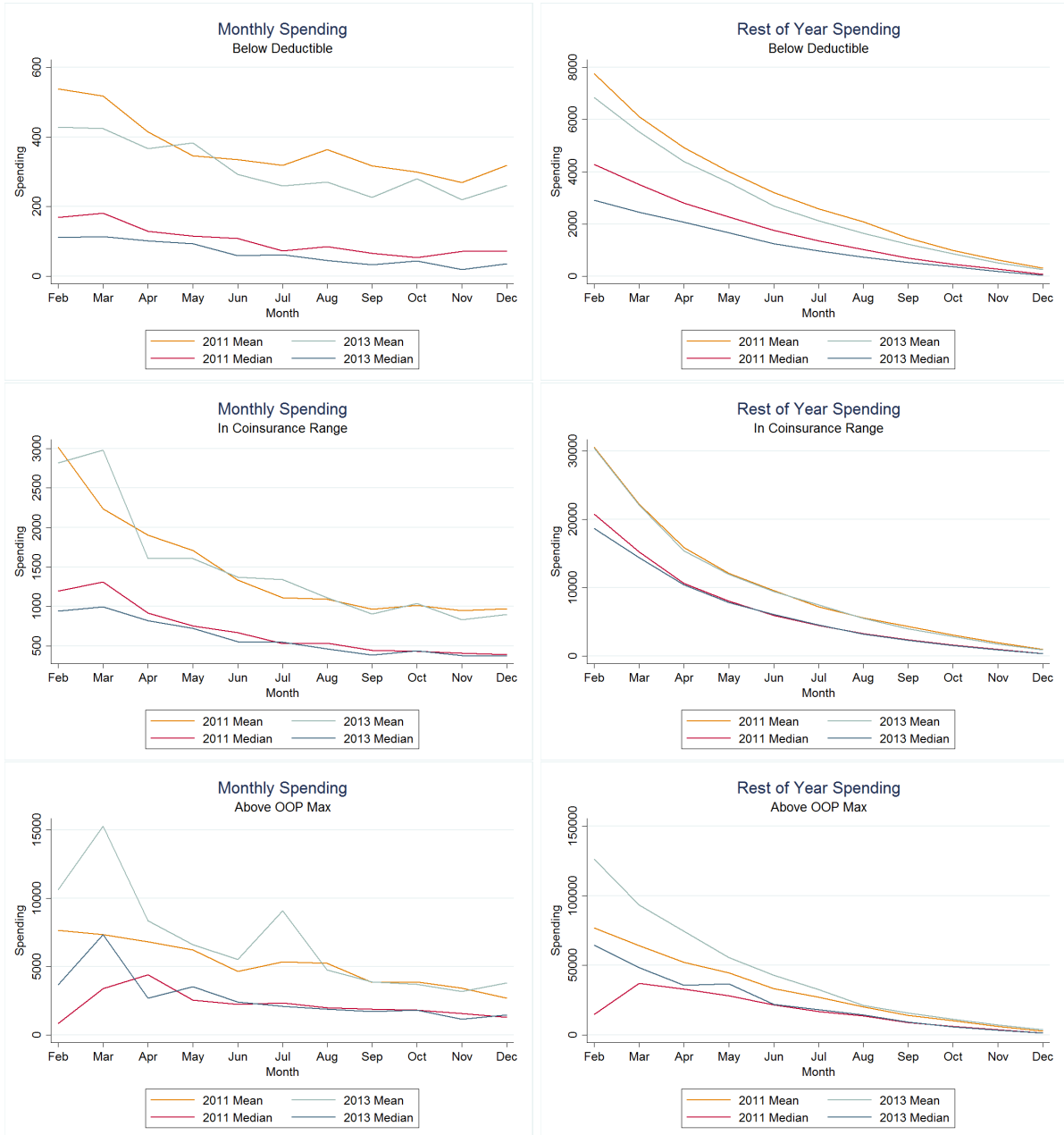
Figure A9: This figure shows incremental spending for employees who have passed the out-of-pocket maximum by the start of a given month in 2013, for employees with one dependent.

	% Total Spend	$\Delta TS_{t+1,t}$	$PPI_{t+1,t}$	$PS_{t+1,t}$	$QE_{t+1,t}$
Routine Vaginal Birth (59400)	2.7%	-13.6%	-15.4%	1.4%	0.4%
Infliximab, 10mg (J1745)	2.6%	24.1%	10.2%	-2.6%	16.6%
MRI, Brain (70553)	2.0%	-6.1%	4.7%	-1.8%	-9.0%
Surgical Pathology, Skin (88305)	2.0%	-9.1%	-1.7%	-2.9%	-4.5%
Routine Cesarean Section Birth (59510)	1.9%	-19.1%	-16.8%	-0.1%	-2.2%
CT Scan, Abdomen and Pelvis (74177)	1.9%	-35.1%	-11.2%	-3.5%	-20.5%
Mammography Screening (G0202)	1.5%	-7.6%	0.3%	1.1%	-8.9%
Anesthesia for Vaginal Birth (01967)	1.3%	-15.4%	-1.0%	1.0%	-15.4%
Colonoscopy, with Biopsy (45380)	1.3%	-28.3%	2.6%	0.6%	-31.6%
MRI, Hip/Knee/Ankle (73721)	1.3%	-24.8%	1.2%	2.3%	-28.4%
Upper Gastrointestinal Endoscopy (43239)	1.2%	-24.2%	2.6%	1.1%	-27.9%
Colonoscopy, Diagnostic (45378)	1.1%	-28.5%	0.5%	2.2%	-31.2%
Wart Removal (17110)	1.1%	-24.9%	2.9%	0.7%	-28.4%
Foot, Molded Insert (L3000)	1.1%	-60.3%	2.0%	1.4%	-63.7%
Transvaginal Echography (76830)	1.0%	-21.5%	2.2%	-0.3%	-23.4%
Globulin, 500mg (J1561)	1.0%	49.7%	99.7%	0.0%	-50.0%
Pegfilgrastim, 6mg (J2505)	0.9%	28.0%	-1.2%	7.7%	21.4%
Fetal Non-Stress Test (59025)	0.8%	-11.5%	-4.7%	-8.5%	1.7%
Trastuzumab, 10mg (J9355)	0.8%	16.5%	-19.1%	0.2%	35.4%
Disposable Contact Lens (S0500)	0.7%	-5.9%	3.1%	4.7%	-13.7%
Laparoscopic Cholecystectomy (47563)	0.7%	-27.2%	4.3%	-3.4%	-28.1%
Ultrasound (76817)	0.7%	-17.8%	-5.7%	1.7%	-13.8%
Blood Count Test (85025)	0.7%	-5.0%	-1.7%	5.0%	-8.4%
Ultrasound (76811)	0.7%	-24.4%	-2.2%	1.2%	-23.3%
Echography of Pregnant Uterus (76805)	0.7%	-23.5%	-3.2%	-1.0%	-19.3%
Chest X-Ray (71020)	0.6%	-24.3%	5.7%	0.0%	-30.0%
Ultrasound (76801)	0.6%	-23.1%	0.4%	-0.6%	-22.9%
CT Scan, Abdomen and Pelvis (74176)	0.6%	-34.0%	-26.5%	13.1%	-20.6%
Thyroid Stimulating Hormone (84443)	0.6%	-8.3%	-2.3%	1.5%	-7.5%
MRI, Lumbar (72148)	0.6%	-26.6%	10.6%	-5.4%	-31.8%

Table A9: This table presents the results for our decomposition of the total reduction in medical spending between 2012 and 2013, for the top 30 procedures by firm-wide spending.
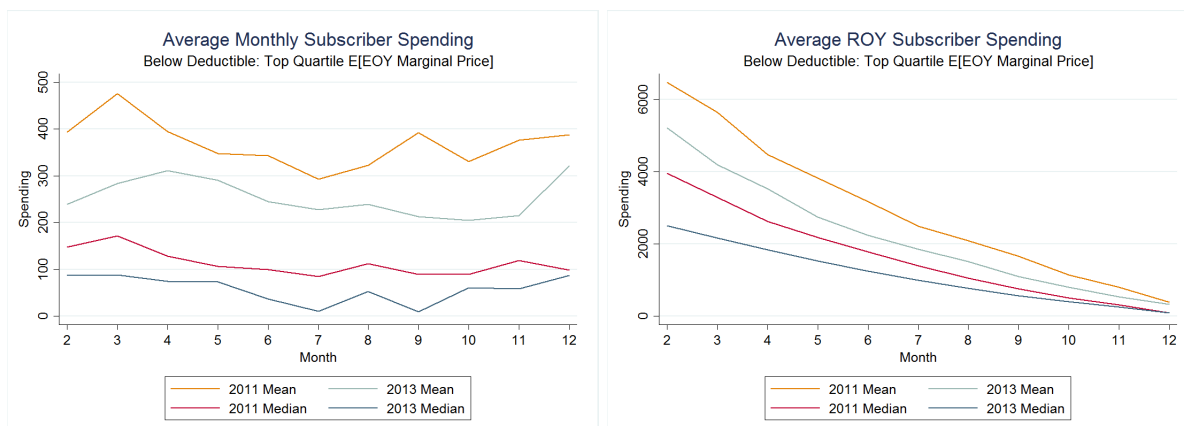

Figure A10: This figure shows incremental spending for employees who have passed the out-of-pocket maximum by the start of a given month in 2013, for families with the highest quartile of shadow price.

Ventile Regression Coefficients

	Coefficient	
Ventile	Treatment	Treatment X 2014
2	-0.0516	0.0428
	(0.0454)	(0.0440)
3	-0.0409	0.00463
	(0.0475)	(0.0466)
4	-0.148***	0.0346
	(0.0486)	(0.0474)
5	-0.140***	0.0399
	(0.0489)	(0.0476)
6	-0.164***	0.0915*
	(0.0495)	(0.0482)
7	-0.121**	0.0429
	(0.0494)	(0.0482)
8	-0.0780	0.0835*
	(0.0494)	(0.0483)
9	-0.150***	0.0913*
	(0.0502)	(0.0492)
10	-0.0376	0.0119
	(0.0529)	(0.0522)
11	-0.0891*	0.114**
	(0.0536)	(0.0527)
12	-0.100*	0.0760
	(0.0542)	(0.0531)
13	-0.145***	0.187***
	(0.0545)	(0.0534)
14	-0.171***	0.135**
	(0.0552)	(0.0537)
15	-0.000201	0.0884
	(0.0555)	(0.0539)
16	-0.0212	0.0719
	(0.0557)	(0.0542)
17	0.0403	0.129**
	(0.0562)	(0.0543)
18	0.113**	0.0911*
	(0.0564)	(0.0547)
19	0.185***	0.0933*
	(0.0565)	(0.0550)
20	0.151***	0.120**
	(0.0568)	(0.0551)

Table A10: This table presents the coefficients on shadow price ventiles for our non-linear contract price regressions.

setting as different price measures are all based on a mapping from measures of health and spending over time.

Figure A11 presents the results of this exercise for the key price coefficient of interest: spot price, expected, end-of-the-year marginal price and last years end-of-the-year marginal price. These results are based on 2013 and 2014 respectively. The coefficients at the far right represent the unconstrained OLS regression; the far left represents the completely constrained LASSO model (where all coefficients are set to zero), with points in between representing constraint levels between these two extremes.

As the constraint binds (moving from right to left), the coefficients on the expected end-of-year marginal price variables are the first set to zero, implying that they are relatively unimportant for explaining the variation. In 2013 and 2014 we see the most important factor, both in terms of effect size and the fact that it remains different from zero as the penalty function gets vary large (steps go to 0), is spot price of 1. In 2013 we see some impact of the 4th quartile of the E[EOY Marginal Price] though the magnitude is far smaller. A similar result occurs for last years marginal price of .1 in the 2013 plot. For 2014 the results are quite similar for spot price of 1: it is the most significant in terms of longevity as well as in magnitude. Together these results lend further evidence, using an alternate empirical approach that flexibly allows the price response to fit the data, that primary driver of the behavioral response is for those under the deductible.
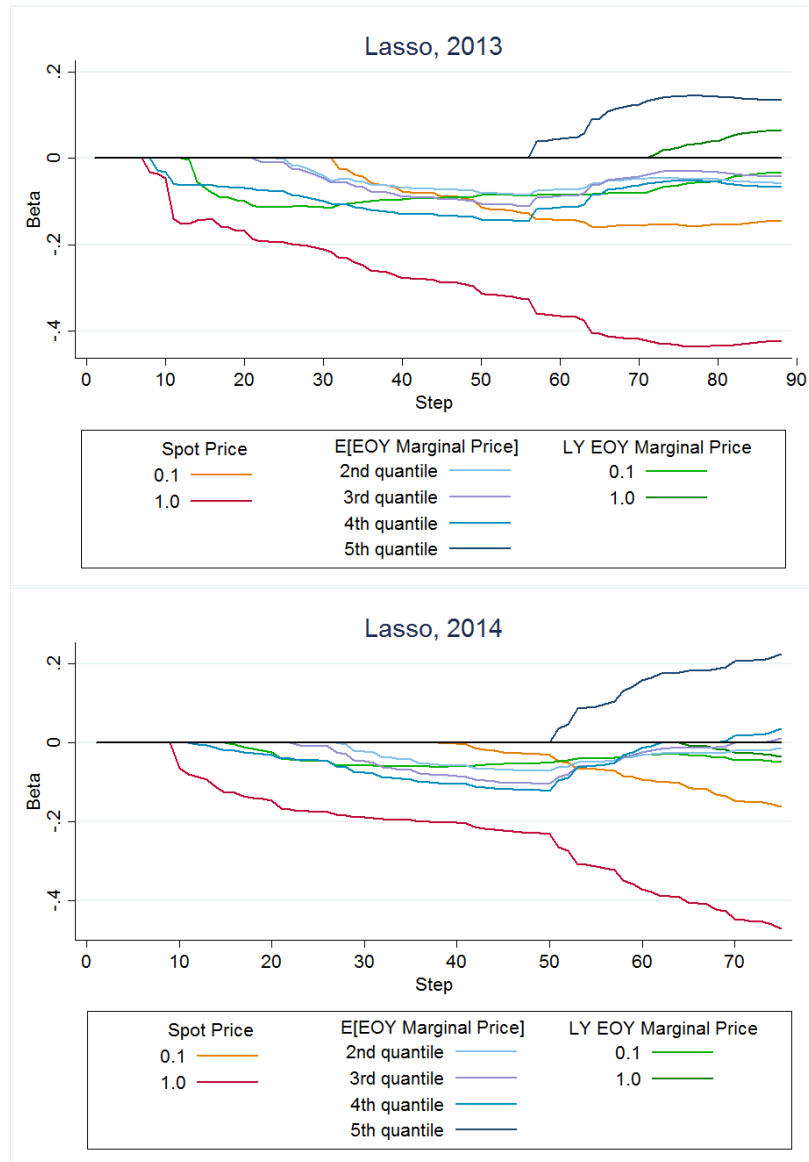
Figure A11: This figure presents our results from the LASSO procedure described in the text. Each step denotes the point where (moving from right to left) a variable is removed from the regression (i.e., its coefficient is set to zero).
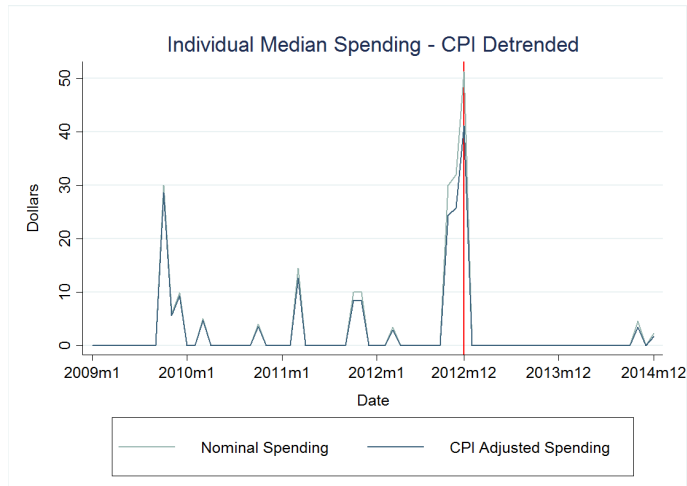
Figure A12: This figure plots median monthly spending for individuals in our primary sample from 2009-2014, both adjusted and unadjusted for age and price trends.

A.8   Additional Tables and Figures

Mean Individual Spending
By Month

Month	Mean Spending	Mean Spending, Detrended
2009, March	352.15	347.91
2009, June	360.89	351.71
2009, September	333.98	319.80
2009, December	358.07	337.26
2010, March	397.97	365.47
2010, June	362.47	328.91
2010, September	351.97	313.95
2010, December	368.23	324.94
2011, March	436.87	381.86
2011, June	412.69	355.13
2011, September	385.52	327.83
2011, December	376.79	316.01
2012, March	471.71	393.43
2012, June	414.34	338.62
2012, September	404.86	329.01
2012, December	526.96	422.53
2013, March	355.94	282.28
2013, June	338.97	268.07
2013, September	372.86	287.69
2013, December	417.47	322.12
2014, March	405.21	306.96
2014, June	386.42	290.04
2014, September	412.19	307.42
2014, December	512.89	378.54

Table A11: This table gives mean spending by individuals for a set of months in our data.

Family Counts and Total Spend
by HDHP Plan Arm

	February	April	June	August	October	December
Family Counts						
2013 Deductible Arm	14,161	11,775	9,369	7,636	6,161	5,031
2013 Coinsurance Arm	991	3,216	5,311	6,713	7,848	8,522
2013 OOP Maximum Arm	56	227	518	859	1,199	1,655
Total Spend ($ million)						
2013 Deductible Arm	10.44	7.93	4.45	3.37	2.54	1.86
2013 Coinsurance Arm	3.86	6.84	7.59	8.74	9.76	10.24
2013 OOP Maximum Arm	0.72	2.02	3.13	4.76	5.59	6.25

Table A12: This table shows the number of families who begin a month in 2013 in a given arm of the non-linear HDHP, as well as total spending by month and plan arm across these families for that month.

Shadow Prices by
Plan Arm and Health Status

	Sickest 10%	Quartile 1 (Sickest)	Quartile 2	Quartile 3	Quartile 4
2013 Deductible Arm					
February	0.06	0.08	0.15	0.31	0.58
April	0.09	0.10	0.17	0.40	0.70
June	0.10	0.10	0.22	0.52	0.80
August	0.10	0.11	0.31	0.67	0.88
October	0.10	0.14	0.51	0.83	0.95
December	0.10	0.19	0.75	0.96	0.99
2013 Coinsurance Arm					
February	–	0.01	0.04	0.06	0.10
April	–	0.03	0.06	0.08	0.10
June	–	0.04	0.08	0.09	0.10
August	–	0.05	0.09	0.10	0.10
October	–	0.07	0.09	0.10	0.10
December	–	0.08	0.10	0.10	0.10

Table A13: This table shows mean 2013 family shadow prices, i.e. true expected end-of-year marginal prices, as a function of (i) their spot price at the start of a month and (ii) where they fall in the distribution of family expected-of-year price, conditional on their spot price.

Price Correlations
by Month, 2013-2014

	Spot-Shadow	Spot-Prior End	Shadow-Prior End
February	0.285	0.131	0.627
April	0.489	0.229	0.564
July	0.668	0.315	0.513
October	0.798	0.363	0.460
December	0.857	0.381	0.437

Table A14: This table shows the correlation in different non-linear contract prices that we consider in our primary regressions, for months pooled over the treatment years 2013-2014.

Burnt Offerings? PPOs DECLINE in Marketplace Plans

Across the states, Preferred Provider Organizations are being dropped from insurance marketplaces, or greatly reduced, in 2016.

<u>Katherine Hempstead, PhD, MA</u>, director and senior program officer, leads RWJF's work on health insurance coverage.
November 3, 2015

The Affordable Care Act (ACA) marketplaces have from the beginning been associated with so-called "narrow network" plans, which are characterized by a limited group of in-network providers. Absence of clear standards about actual or desirable network size has led to calls for both more-specific, <u>consumer-friendly categorizations of network size</u>, as well as the creation of stronger state, or even <u>national, standards for "network adequacy,"</u>

Despite the concerns that have been raised about narrow network plans, <u>surveys</u> show many consumers are willing to give up access to a broader group of providers in exchange for lower premiums. During the first two years of the marketplaces, however, there was a broad array of plan type choices on the exchanges. As seen in Table 1, approximately 35 percent of silver plans offered in 2014 were Preferred Provider Organizations (PPOs). In 2015, while the number of silver plans offered nearly doubled, the distribution changed very little, and 39 percent of plans on the marketplace were PPOs. These often-popular plans allow participants to generally choose the health care providers they want, paying lower fees when they select "preferred providers."

During the months leading up to the 2016 open enrollment period, there were some high-profile PPO withdrawals announced, including BCBS of Texas, New Mexico, and Illinois. Many anticipated that the share of offered plans that were PPOs would decline noticeably in 2016. This assessment of the status of silver PPO plans offered in 2016 suggests that this is indeed the case. The plans offered in 2015 were identified using <u>HIX Compare</u>, and the <u>healthcare.gov</u> website was used to identify their status in 2016. For state-based marketplaces, many of which were not open when this analysis was conducted, rate filings, carrier websites and other sources were used to identify the status of 2015 plans in 2016. In a small share of cases their 2016 status could not be identified.

In 2015, there were 790 unique PPO plans offered in 48 states by 93 different carriers. Since many carriers offered PPO plans in more than one state, there were a total of 131 unique carrier-state PPO offerings. Usually carriers offered more than one PPO plan in a given state; the median number of plans offered by a carrier in a state was four.

Figure 1 shows the 2016 status of silver PPO offerings from 2015. As can be seen, only 33 percent of these offerings remained the same in 2016; 28 percent were dropped, and 39 percent were reduced. The dropping of PPO plans occurred either because carriers exited the market, as was the case with Assurant and some of the co-ops, or because they discontinued their PPO plans, as in the examples discussed above. Reductions of offerings occurred when carriers reduced the number of plans they offered or offered plans in fewer rating areas.

Table 2 shows the change in the status of PPO offerings by state. In 22 states, all of the PPO offerings for 2015 were either dropped or reduced. In 11 states, the 2015 PPO offerings remained unchanged in 2016. The rest of the states fell somewhere in between. New Jersey and New York were not included in Table 2 since there were no silver PPO offerings in these states in 2015.

The data show a pronounced regional pattern. As seen in Figure 2 and Table 3, states where all of the 2015 offerings were dropped in 2016, more likely to be in the Mountain or West South Central regions and least likely to be in the Pacific and Northeast regions. *(Note: Pennsylvania was included with the New England states in the Northeast region because of the exclusion of the other two Mid-Atlantic states: New York and New Jersey.)*

The top 20 carriers that offered PPO plans on the marketplace in 2015 are shown in Table 4. The carriers are ranked by the number of unique plans that they

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offered, and the number of states in which they offered plans is also shown. The top two carriers, Assurant and Community Health Alliance, dropped all of their PPO offerings because they exited the market. None of the other carriers in the top 20 exited the market, although Land of Lincoln Mutual Health Insurance Company is limiting enrollment this year, and Moda Health is exiting certain states. Among the other leading carriers, many are single state Blues, and the majority of carriers who retained their PPO offerings were in this category. The two exceptions are also Blues plans—Anthem Blue Cross Blue Shield retained offerings in five states, and Blue Cross Blue Shield of Kansas City retained offerings in Kansas and Missouri. In general, single state Blues on this list that did not retain their offerings were more likely to reduce than to drop. This was the case for the Blues plans in North Carolina, Oklahoma, Pennsylvania, and Illinois. The Illinois plan is interesting because after widespread news reports that they would be dropping their PPO, they did offer some reduced PPO options. There are several national carriers on this list—Cigna, Humana, and Coventry. They were more likely to drop than to reduce, and these carriers discontinued much of their PPO business in 2016.

This decline in the offering of PPO plans in the 2016 marketplace represents a significant change. In one sense this analysis underestimates the supply of PPO plans since it does not explicitly take new entrants into account. A small number of newcomers were identified, including Harken Health in Georgia and Illinois; Medica, which entered in Iowa and Nebraska; Scott and White and Allegia, which entered in Texas; and a number of others. In general, new entrants came to markets where others exited, and it remains to be seen how they will fare.

In another sense, this analysis may underestimate the extent of change because the term "PPO" does not have an exact definition. It could be the case that many of the offerings that were retained are not actually the same, and in fact have smaller networks and/or fewer out-of-network benefits as compared to 2015. This dimension of potential change was not measured for this analysis, but is an important issue to investigate going forward. Findings of changes over time and/or wide variation in offerings in plans defined as PPOs may increase interest in improving characterization of plan type, so that consumers clearly understand important features such as network size and existence of out-of-network benefits.

Carriers who discontinued PPOs have argued their expense makes it impossible to affordably price exchange products. Given the significance of the prices to exchange consumers, and the competitiveness of the market, these are important considerations, yet some returning consumers will find that they no longer have access to their provider, or do not have the opportunity to purchase a plan with out-of-network benefits. It remains to be seen how marketplace consumers will react to these trends, and to what extent these changes in plan design will also be seen in the off-exchange market and in employer-sponsored coverage.

Sources: HIX Compare 2015, and the 2016 federal public use file, available at
https://www.cms.gov/CCIIO/Resources/Data-Resources/marketplace-puf.html

State exchange websites were used for SBM states.

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Table 1. Network Characteristics of Silver ACA Plans, 2014 and 2015

	2014				2015				
	(N) Plans	% PPO	% HMO	% EPO	% POS	(N) Plans	% PPO	% HMO	% EPO	% POS
AK	13	100%	0%	0%	0%	11	100%	0%	0%	0%
AL	4	100%	0%	0%	0%	8	50%	50%	0%	0%
AR	16	56%	0%	0%	44%	24	71%	0%	0%	29%
AZ	67	39%	61%	0%	0%	64	36%	61%	0%	3%
CA	16	19%	69%	13%	0%	19	16%	63%	21%	0%
CO	53	23%	62%	6%	0%	50	28%	64%	8%	0%
CT	4	75%	0%	0%	25%	11	55%	0%	0%	45%
DC	8	0%	50%	0%	38%	6	0%	83%	0%	17%
DE	5	20%	20%	60%	0%	7	29%	29%	43%	0%
FL	73	12%	55%	22%	11%	87	25%	55%	7%	13%
GA	25	8%	88%	0%	4%	78	38%	60%	0%	1%
HI	10	40%	20%	0%	0%	7	29%	71%	0%	0%
IA	25	40%	8%	8%	44%	36	22%	17%	0%	61%
ID	20	15%	30%	0%	55%	38	42%	58%	0%	0%
IL	33	73%	18%	0%	9%	97	58%	41%	0%	1%
IN	40	0%	100%	0%	0%	53	30%	62%	8%	0%
KS	24	83%	0%	0%	17%	29	76%	3%	0%	21%
KY	7	86%	14%	0%	0%	14	50%	50%	0%	0%
LA	19	42%	26%	0%	32%	21	38%	29%	0%	33%
MA	17	6%	94%	0%	0%	20	5%	90%	5%	0%
MD	16	13%	38%	25%	19%	17	6%	53%	24%	12%
ME	9	33%	33%	0%	33%	20	25%	35%	0%	40%
MI	23	39%	61%	0%	0%	72	33%	49%	4%	14%
MN	20	75%	20%	0%	0%	25	92%	8%	0%	0%
MO	16	100%	0%	0%	0%	37	86%	0%	14%	0%
MS	10	40%	60%	0%	0%	15	33%	67%	0%	0%
MT	10	90%	0%	0%	10%	16	88%	0%	0%	13%
NC	22	64%	0%	0%	36%	33	24%	9%	0%	67%
ND	9	89%	11%	0%	0%	9	44%	33%	0%	22%
NE	16	38%	31%	0%	31%	24	50%	33%	0%	17%
NH	3	0%	100%	0%	0%	16	44%	56%	0%	0%
NJ	13	0%	8%	85%	8%	19	0%	16%	79%	5%
NM	16	31%	69%	0%	0%	29	21%	79%	0%	0%
NV	22	0%	73%	0%	27%	27	15%	59%	0%	26%
NY	43	0%	33%	26%	9%	83	0%	45%	39%	12%
OH	75	39%	61%	0%	0%	95	51%	47%	0%	2%
OK	20	55%	40%	0%	5%	35	74%	26%	0%	0%
OR	34	59%	6%	26%	6%	51	73%	0%	27%	0%
PA	57	58%	32%	0%	11%	105	47%	38%	11%	4%
RI	3	67%	0%	0%	0%	7	43%	57%	0%	0%
SC	17	0%	0%	71%	29%	50	24%	0%	52%	24%
SD	13	46%	54%	0%	0%	20	45%	55%	0%	0%
TN	32	91%	0%	9%	0%	95	100%	0%	0%	0%
TX	42	33%	64%	2%	0%	139	27%	62%	4%	7%
UT	35	3%	94%	0%	3%	42	7%	86%	0%	7%
VA	28	32%	43%	0%	25%	29	31%	38%	0%	31%
VT	6	0%	50%	50%	0%	6	0%	50%	50%	0%
WA	17	41%	35%	0%	0%	28	68%	29%	4%	0%
WI	92	13%	60%	3%	24%	174	7%	73%	6%	14%
WV	4	100%	0%	0%	0%	5	100%	0%	0%	0%
WY	5	20%	80%	0%	0%	16	75%	25%	0%	0%
OVERALL	**1207**	**35%**	**44%**	**7%**	**11%**	**2016**	**39%**	**43%**	**8%**	**10%**

Source: HIX Compare
Unit of analysis is the individual plan

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Table 2. 2016 Status of Silver PPO Marketplace Offerings in 2015

State	(N) PPO plans offered in 2015*	(N) Carriers offering PPOs in 2015	Carrier Status in 2016		
			Same offering	Dropped**	Reduced***
AK	11	2	0%	0%	100%
AL	4	2	100%	0%	0%
AR	17	3	0%	0%	100%
AZ	23	6	26%	74%	0%
CA	3	2	100%	0%	0%
CO	14	4	29%	21%	50%
CT	6	2	100%	0%	0%
DC	1	1	100%	0%	0%
DE	2	1	0%	0%	100%
FL	22	3	0%	100%	0%
GA	30	3	0%	53%	47%
HI	2	1	100%	0%	0%
IA	8	1	0%	100%	0%
ID	16	4	31%	0%	69%
IL	56	6	0%	21%	79%
IN	16	1	0%	100%	0%
KS	22	3	41%	27%	32%
KY	8	2	71%	29%	0%
LA	8	2	75%	0%	25%
MA	1	1	100%	0%	0%
MD	1	1	100%	0%	0%
ME	5	1	100%	0%	0%
MI	24	5	25%	42%	33%
MN	23	3	100%	0%	0%
MO	32	6	44%	13%	44%
MS	5	1	0%	0%	100%
MT	14	4	7%	29%	64%
NC	8	1	0%	0%	100%
ND	4	1	0%	0%	100%
NE	12	3	0%	67%	33%
NH	7	2	0%	29%	71%
NM	6	2	0%	100%	0%
NV	4	1	0%	100%	0%
OH	48	6	69%	25%	6%
OK	26	2	0%	15%	85%
OR	37	7	5%	0%	95%
PA	49	8	2%	29%	69%
RI	3	1	100%	0%	0%
SC	12	1	0%	100%	0%
SD	9	1	0%	0%	100%
TN	95	5	6%	56%	38%
TX	37	5	0%	100%	0%
UT	3	1	0%	100%	0%
VA	9	4	22%	0%	78%
WA	18	5	56%	11%	33%
WI	12	2	0%	0%	100%
WV	5	1	0%	0%	100%
WY	12	1	100%	0%	0%
Overall	**790**	**131**	**43**	**37**	**51**
		100%	**33%**	**28%**	**39%**

New Jersey and New York did not offer PPO plans in 2015.
(N): Refers to number of unique plans, which could have been offered in any number of rating areas.
*** Dropped: Plans could be dropped because carriers exited market, or because they discontinued plans but remained*
   in the market.
**** Reduced: Carrier offered fewer plans, and/or offered plans in fewer rating areas.*

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Table 3. 2016 Status of Silver PPO Marketplace Offerings in 2015, by Census Region

	(N)	Keep	Drop	Reduce
Northeast	15	40%	13%	47%
East North Central	20	30%	25%	45%
West North Central	18	39%	28%	33%
Mountain	23	30%	43%	26%
Pacific	17	47%	6%	47%
West South Central	12	8%	50%	42%
East South Central	10	50%	30%	20%
South Atlantic	16	20%	32%	50%
Total	**131**	**33%**	**28%**	**39%**

Table 4. Top 20 Carriers Offering Silver PPO Marketplace Plans in 2015

	Carrier	(N) Plans offered in 2015	(N) States	% States where offering is the same	% States where PPO is dropped	% States where PPO is reduced
1	Assurant Health*	158	14	0%	100%	0%
2	Community Health Alliance*	43	1	0%	100%	0%
3	BlueCross BlueShield of Tennessee	36	1	100%	0%	0%
4	Coventry Health Care/Health and Life	36	4	25%	25%	50%
5	Cigna Healthcare	29	6	17%	66%	17%
6	Blue Cross and Blue Shield of Oklahoma	22	1	0%	0%	100%
7	BridgeSpan/Bridgespan Health Company	21	4	25%	25%	0.5%
8	AultCare Insurance Company	20	1	100%	0%	0%
9	PacificSource Health Plans	20	2	0%	0%	100%
10	Humana Insurance Company	19	7	43%	29%	29%
11	Avera Health Plans	17	2	0%	50%	50%
12	Blue Cross and Blue Shield of Kansas City	17	2	50%	0%	50%
13	Highmark/Highmark Health Insurance Company	17	2	0%	0%	100%
14	Blue Cross and Blue Shield of Illinois	14	1	0%	0%	100%
15	Anthem Blue Cross and Blue Shield	12	5	100%	0%	0%
17	Blue Cross Blue Shield of Wyoming	12	1	100%	0%	0%
18	Alliant Health Plans	11	1	0%	0%	100%
19	Moda Health	11	3	0%	33%	66%
20	Medica	11	2	50%	0%	50%
21	Common Ground Healthcare Cooperative	10	1	0%	0%	100%
22	Land of Lincoln Mutual Health Insurance Company	10	1	0%	0%	100%
23	BlueCross BlueShield Minnesota	9	1	100%	0%	0%
24	Blue Cross and Blue Shield of NC	8	1	0%	0%	100%
25	Capital BlueCross	6	1	0%	0%	100%

Carriers ranked by number of unique silver PPO plans offered in 2015 marketplace
*Carrier exited market altogether
"Reduced" means limiting number of plans offered and/or number of rating areas in which plans are offered, or capping membership.

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Figure 1. 2016 Status of 2015 Silver PPO Marketplace Plans
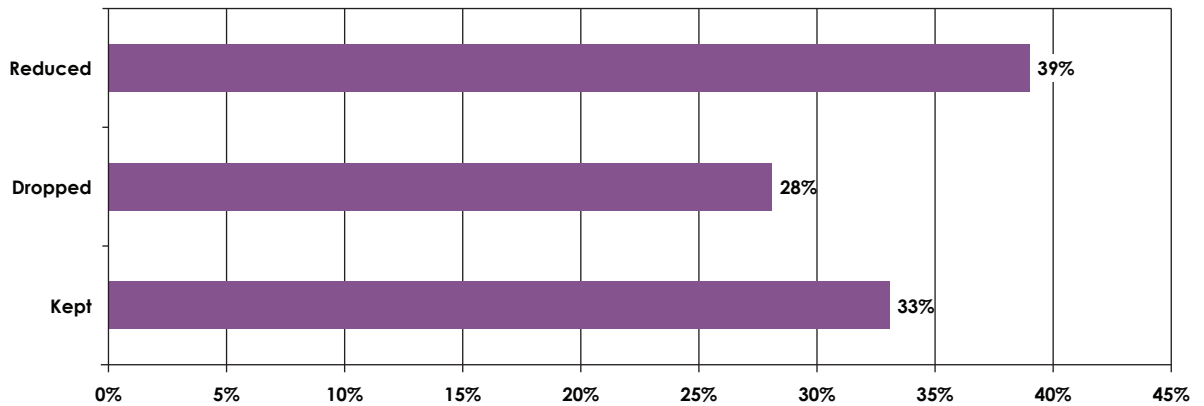
Figure 2. Percent of 2015 Silver PPO Offerings Dropped in 2016 by Census Region
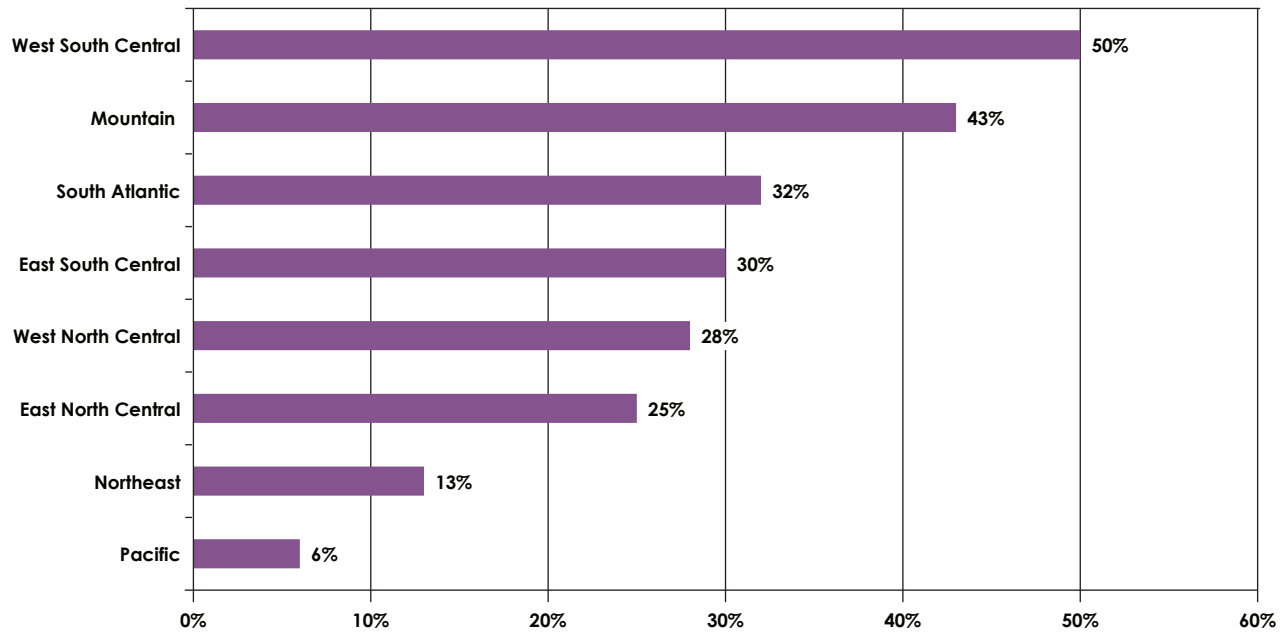
About the Robert Wood Johnson Foundation

For more than 40 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are striving to build a national Culture of Health that will enable all to live longer, healthier lives now and for generations to come. For more information, visit www.rwjf.org. Follow the Foundation on Twitter at www.rwjf.org/twitter or on Facebook at www.rwjf.org/facebook.

Robert Wood Johnson
Foundation

ASPE

OFFICE OF THE ASSISTANT SECRETARY
FOR PLANNING AND EVALUATION

ESTIMATES OF THE QHP ELIGIBLE UNINSURED BY DESIGNATED MARKET AREA FOR THE THIRD OPEN ENROLLMENT PERIOD
11/05/2015

HOME • ESTIMATES OF THE QHP ELIGIBLE ...

ASPE has developed estimates of the number of uninsured who are likely to qualify for coverage for 2016 through Qualified Health Plans (QHPs) in the Health Insurance Marketplace ("QHP-eligible uninsured") for select designated market areas (DMA) in the United States. A DMA is a geographic area that represents a specific television market defined by the Nielsen Company. Some DMAs span multiple states.

We define QHP-eligible uninsured individuals as those who are uninsured and have incomes at or above the level that determines eligibility for Marketplace insurance affordability programs (generally greater than 100% or 138% of the federal poverty level (FPL), depending on state Medicaid expansion status).

In order to support local outreach efforts, ASPE has developed two sets of data. The first list consists of the top 60 DMAs based on the largest number of QHP-eligible uninsured, and the second list consists of the top 20 DMAs by the number of QHP-eligible uninsured *as a percent of the DMA's total nonelderly population*. Because some of these estimates apply to small geographic areas, they are subject to potentially significant sampling errors. Particularly for smaller areas, these estimates should be treated as approximate. Due to this sampling error, the true ranking of DMAs by the number of QHP-eligible uninsured could differ from that implied by these estimates. Our estimates are less precise at the DMA than at the national level and thus should be used with caution for uses that require precise estimates.

The estimates presented here are of the QHP-eligible uninsured population in the entirety of each DMA, regardless of whether portions of the DMA are in states using the HealthCare.gov eligibility and enrollment platform or in a State-based Marketplace (SBM) operating its own platform.

To estimate the current number of QHP-eligible uninsured, we calculated the number of QHP-eligible uninsured individuals prior to the first open enrollment period based on the 2013 American Community Survey (ACS). We then adjusted that estimate to reflect the reduction in uninsured that occurred between 2013 and the second quarter of 2015, according to the Gallup-Healthways Well-Being Index. This analysis suggests there are currently 10.5 million QHP-eligible uninsured in the United States. To produce DMA-level estimates, we then distribute the national QHP-eligible population based on the geographic distribution of the uninsured in the most recent American Community Survey, the 1-year Public Use Microdata Sample (2013) and 5-year summary file (2009-2013). The estimates of the nonelderly population are based on the ACS 5-year summary file (2009-2013).

The approximations presented here may not line up with other available estimates of the remaining uninsured due to differences in data sources and methodology. Complete state and sub-state level 2015 estimates of the uninsured are not yet available from federal surveys, the gold standard for estimates of the uninsured.

DMA QHP Eligible Uninsured data

osaspeinfo@hhs.gov

Patient Access to HIV Drugs in Exchange Plans Is Limited Compared to Other Sources of Coverage

New analysis from Avalere finds that only 16 percent of silver exchange plans in 2015 cover all top HIV drug regimens with cost sharing less than $100 per month per regimen. While almost half of plans include all 10 of the most commonly used HIV regimens on their formularies, many plans charge higher out-of-pocket costs for these drugs.

Medication access is a combination of drug coverage (inclusion of all drugs within a regimen on a plan's formulary) and patient costs (out-of-pocket expenses resulting from copays or coinsurance). Because drug resistance, side effects, or pill burden, HIV patients have unique treatment needs and having comprehensive coverage for these products can be particularly important. Moreover, how much a patient pays out-of-pocket is linked to adherence to medications over time.

"Ensuring individuals living with HIV have affordable access to their medications is critical both for maintaining the health of the patient but also for improving public health by limiting disease transmission," said Caroline Pearson, senior vice president at Avalere.

Access to Top HIV Regimens by 2015 Silver Exchange Plans Based on Coverage and Cost Sharing

Full Access: 10 regimens covered and ≤$100/month per regimen — 232 plans, 16%

Moderate Access: 7-9 regimens covered and/or ≤$200/month per regimen — 414 plans, 28%

Restrictive Access: <7 regimens covered or >$200/month per regimen — 848 plans, 57%
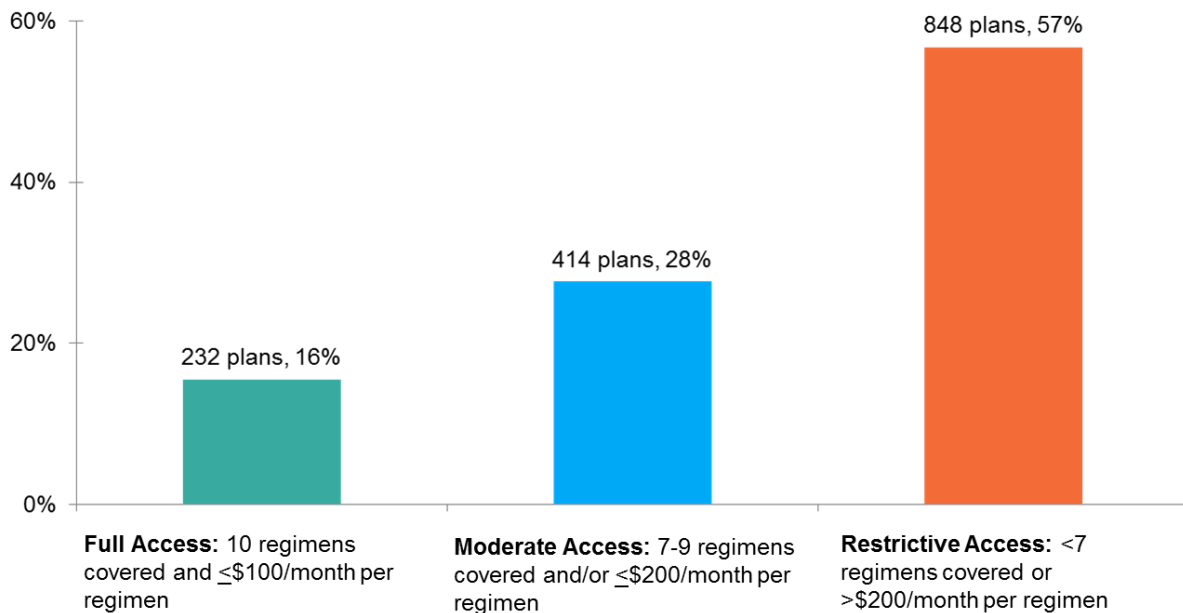
Within a given market, HIV patients can seek to make informed shopping decisions by enrolling in a plan with better coverage for HIV medications. However, availability of plans with broad access to these products varies significantly by state. Indeed, as shown in the map below, consumers in 31 states and the District of Columbia will find a majority of plans cover fewer than 7 of the top regimens and / or require cost sharing over $200 per month. Conversely, a majority of plans in 5 states cover all 10 regimens with cost sharing of $100 or less per month.

Access to Top HIV Regimens by 2015 Silver Exchange Plans Based on Coverage and Cost Sharing, by State
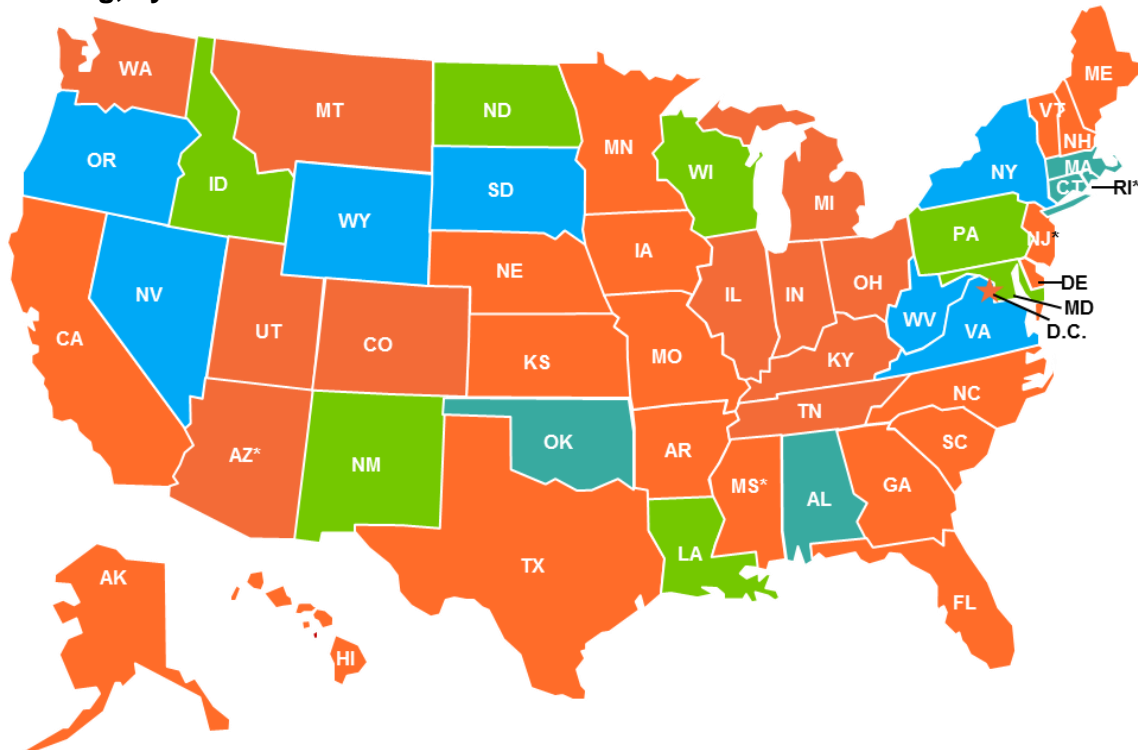
■ **Restrictive Access:** In 31 states (plus DC; see map above), the majority of plans offered in the state covered fewer than 7 of the 10 most common of HIV treatment regimens, or required cost sharing over $200 per month.

■ **Moderate Access:** In 7 states (MT, NV, NY, OR, SD, WV, WY), the majority of plans covered between 7-9 regimens or required cost sharing of $200 or less per month.

■ **Full Access:** In the remaining 5 states (AL, CT, MA, OK, RI), the majority of plans available to patients offered access to all 10 treatment regimens with cost sharing of $100 or less per month.

■ **Mixed Access:** In 7 states (ID, LA, MD, ND, NM, PA, WI) plans were evenly distributed across the access continuum with relatively equal numbers of plans covering between 1-6, 7-9, or all 10 of the 10 most commonly prescribed HIV treatment regimens with cost sharing spread across different levels.

These findings highlight differences in the benefits found in the exchange market when compared to other potential sources of coverage for people with HIV.

Traditionally, many uninsured and underinsured patients accessed HIV therapies through AIDS Drug Assistance Programs (ADAPs), which offer generous coverage with little to no cost sharing for patients.[1] Analysis of 2015 ADAP formularies reveals that 47 out of 50 state ADAP programs (plus DC) cover all 10 of the 10 most commonly prescribed HIV treatment regimens included in this analysis. The three states that do not cover all 10 regimens (MT, RI, SD) cover 9 out of 10. Some but not all ADAPs offer wrap-around coverage to reduce enrollee's drug cost sharing in exchanges.

Meanwhile, in the employer market, HIV drugs are widely covered on generic and preferred brand tiers and are almost never placed on a specialty tier. Prior analysis by Avalere found that single source HIV medications were subject to utilization management (UM) only 8 percent of the time in the employer market, and were placed on the specialty tier just 3 percent of the time by employer sponsored plans.[2] In contrast, 30% of silver exchange plans placed all 10 treatment regimens on the highest tier.

As the 2016 exchange open enrollment period begins, it will be important to assess whether these trends in HIV drug coverage persist to ensure patients who need these drugs enroll in plans with broad access.

Avalere conducted additional analysis on HIV drug access in exchanges. The full report is available here.

Methodology
Avalere analyzed coverage, cost sharing, and specialty tier placement of the 10 most commonly prescribed HIV treatment regimens by market share in 2014 Q4, as reported by Ipsos U.S. HIV Monitor. The analysis included formularies for all silver plans in 50 states and D.C. in 2015. Coinsurance dollar amounts were estimated using averaged wholesale acquisition cost (WAC) across all regimens.[3]

This analysis was funded by Gilead Sciences. Avalere maintained editorial control over the content of the analysis and release.

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1 NASTAD. National ADAP Monitoring Project 2015 Annual Report. May 2015.
2 15 states were included in analysis of UM: AR, CA, FL, GA, IL, IN, MI, NC, NJ, NY, OH, PA, TX, VA, WI. Eight states were included in specialty tier analysis: FL, GA, IL, NC, PA, and TX.
3 Wholesale Acquisition Cost (WAC) does not include discounts or rebates and thus may not be reflective of prices available to any specific patient

Coverage of Top HIV Regimens in 2015 Exchange Plans

Avalere Health | An Inovalon Company
November 2015

Analysis of 2015 Exchange Coverage of HIV Regimens

METHODOLOGY

- Avalere analyzed access to the 10 most commonly prescribed HIV/AIDS regimens in 2015 exchange silver plans. Measures of access included coverage (formulary inclusion), specialty tier placement, and cost sharing.

  o Regimens included were: Atripla, Complera, Stribild, Triumeq, Truvada/Prezista, Truvada/Reyataz, Truvada/Isentress, Truvada/Kaletra, Truvada/Tivicay, and Epzicom/Prezista

  o The 10 most frequently prescribed HIV regimens were determined by market share in Q4 2014 as reported by Ipsos Healthcare U.S. HIV Monitor Q4 2014.

  o For multi-drug regimens, the coverage and cost sharing designated for the regimen reflects the most restrictive access (e.g., highest tier, highest cost sharing) associated with any single one of the component therapies.

- Avalere examined product access using Avalere Health PlanScape®, a proprietary analysis of exchange plan features, May 2015. This analysis is based on data collected by Managed Markets Insight & Technology, LLC.

This analysis was funded by Gilead. Avalere maintained editorial control over the content of the analysis.

Avalere | 2

Coverage and Cost Sharing for 10 Most Commonly Prescribed HIV Treatment Regimens Varies Widely

2015 SILVER PLAN COVERAGE

- Nearly half of all silver plans in 2015 included all of the 10 most commonly prescribed HIV regimens on their formularies

  o 12% of plans cover 6 or fewer regimens

- Coverage of the newest regimens lags compared to that of older treatments

  o Triumeq (approved in 2014) was covered by only 50% of plans

- While many plans (51%) cover HIV drugs on lower-cost tiers, 30% of plans placed all 10 treatment regimens on the highest formulary tier

- Overall, coinsurance was used slightly more often than copays (52% vs. 48% of covered regimens, respectively)

  o Only 16% of plans cover all 10 regimens with <$100/month cost sharing

Avalere | 3

Nearly Half of All Silver Plans in 2015 Covered All of the 10 Most Commonly Prescribed HIV Regimens
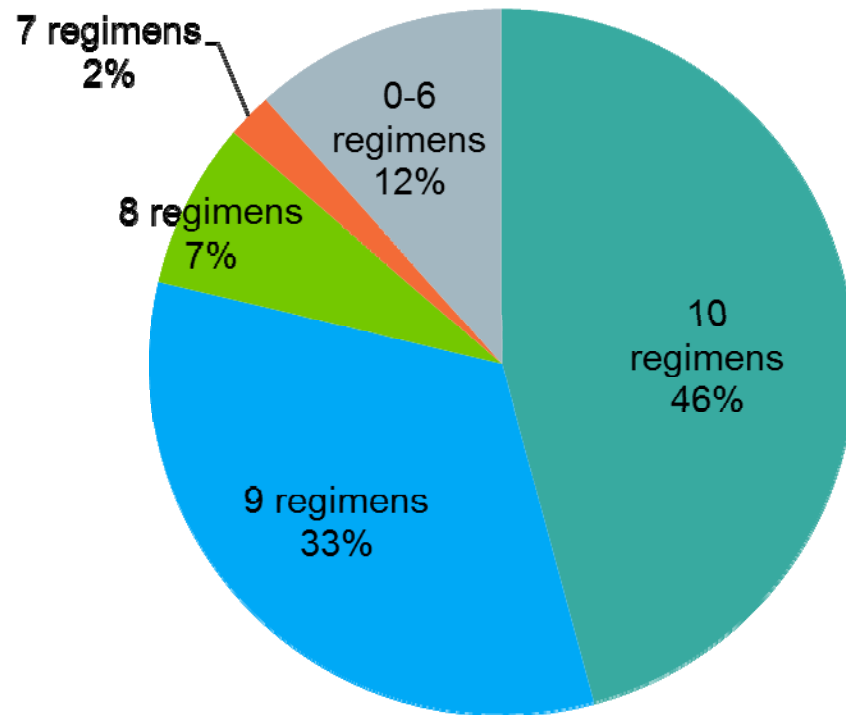
Coverage

- 46% of plans cover all 10 of the 10 most commonly prescribed HIV treatment regimens

- 43% of plans cover between 7-9 of the 10 most commonly prescribed HIV treatment regimens

- 12% of plans cover 6 or fewer regimens

Coverage of the newest regimens lags compared to that of older treatments. Triumeq (approved in 2014) was covered by only 50% of plans

Note: Coverage is weighted according to unique plan-state combinations. Sample includes formularies for silver plans participating in 50 states and D.C. in 2015. Numbers may not total 100% due to rounding.
Source: Avalere Health PlanScape®, a proprietary analysis of exchange plan features, May 2015. This analysis is based on data collected by Managed Markets Insight & Technology, LLC and includes the 10 most frequently prescribed HIV regimens by market share in Q4 2014 as reported by Ipsos Healthcare U.S. HIV Monitor Q4 2014.
This analysis was funded by Gilead. Avalere maintained editorial control over the content of the analysis.

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Plans Use Coinsurance for HIV Regimens Slightly More Often than Copays

Tier Placement

While the majority of 2015 silver plans (51%) did not place any HIV drugs on the specialty tier, nearly one-third (30%) of plans placed all 10 treatment regimens on the highest tier

Cost Sharing

- Overall, coinsurance was used slightly more often than copays (52% vs. 48% of covered regimens, respectively)

- Typically, coinsurance results in higher out-of-pocket costs than copays, and can make it difficult for patients to predict expenses

Copay, 48%

Coinsurance, 52%

Avalere | 5

Application of Coinsurance Results in Higher Out-of-Pocket Costs to Consumers

PATIENT OUT-OF-POCKET COSTS FOR TOP HIV REGIMENS IN SILVER EXCHANGE PLANS
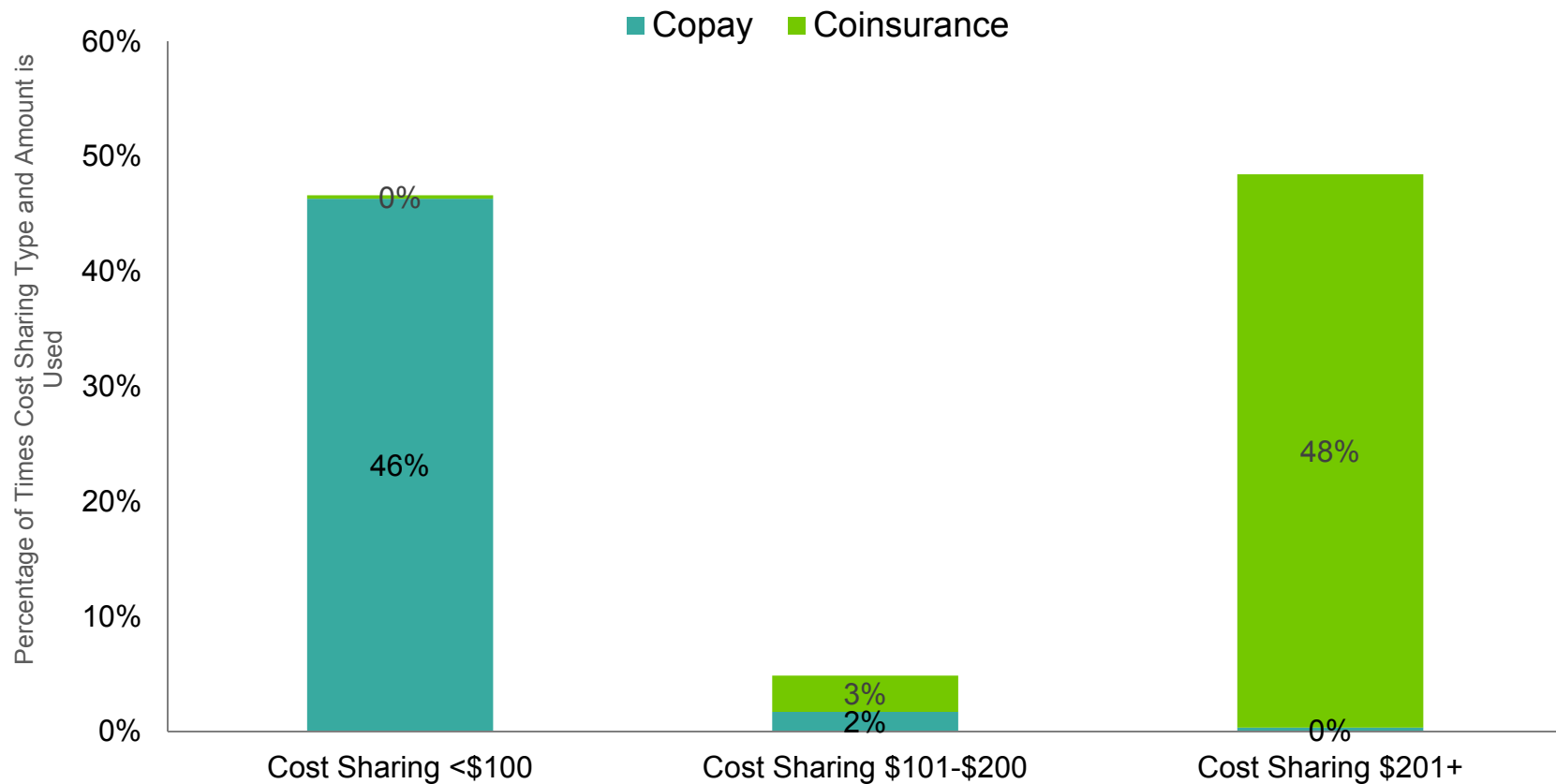
Note: Coinsurance dollar amounts were estimated using averaged wholesale acquisition cost (WAC) across all regimens. WAC does not include discounts or rebates and thus may not be reflective of prices available to any specific patient.
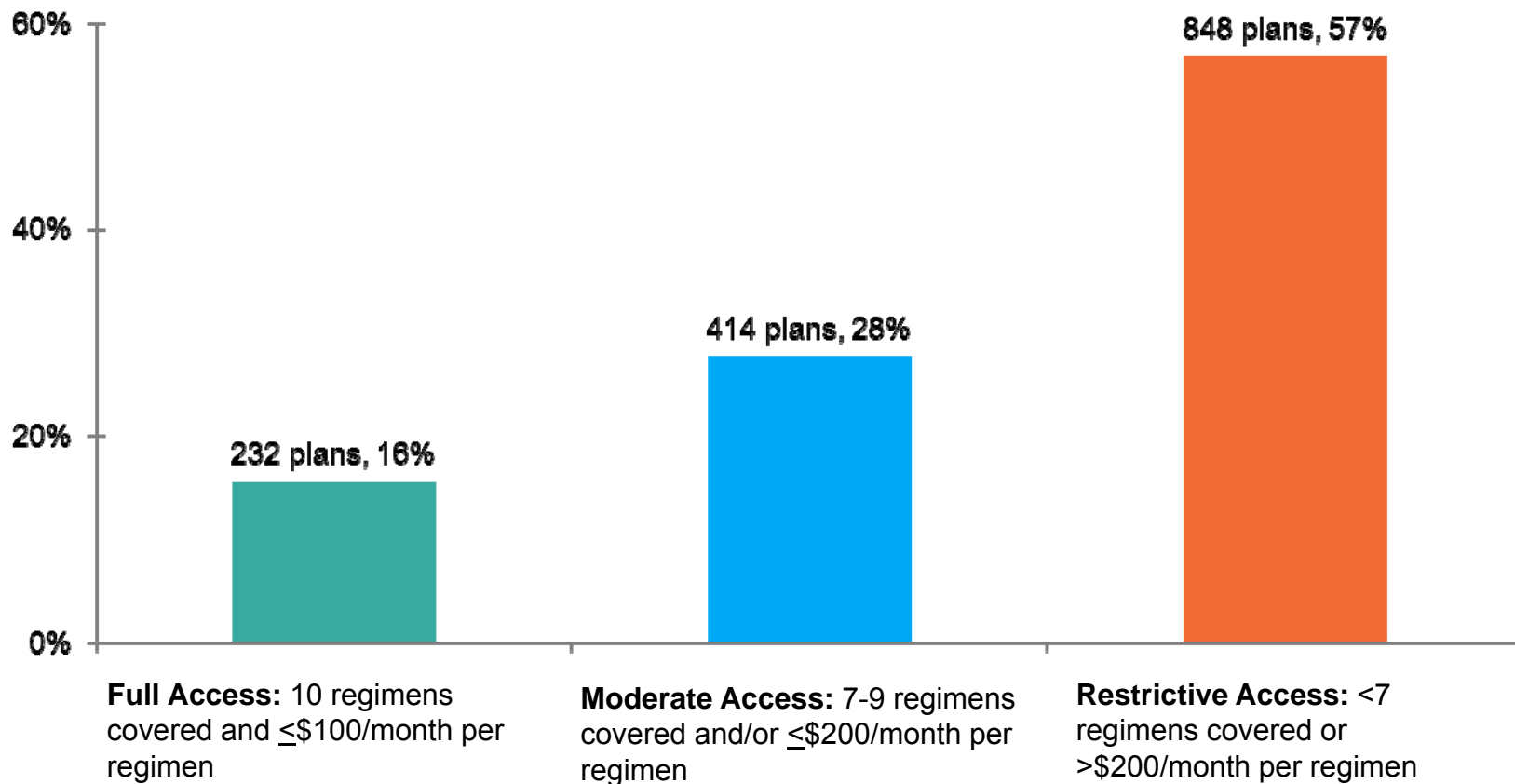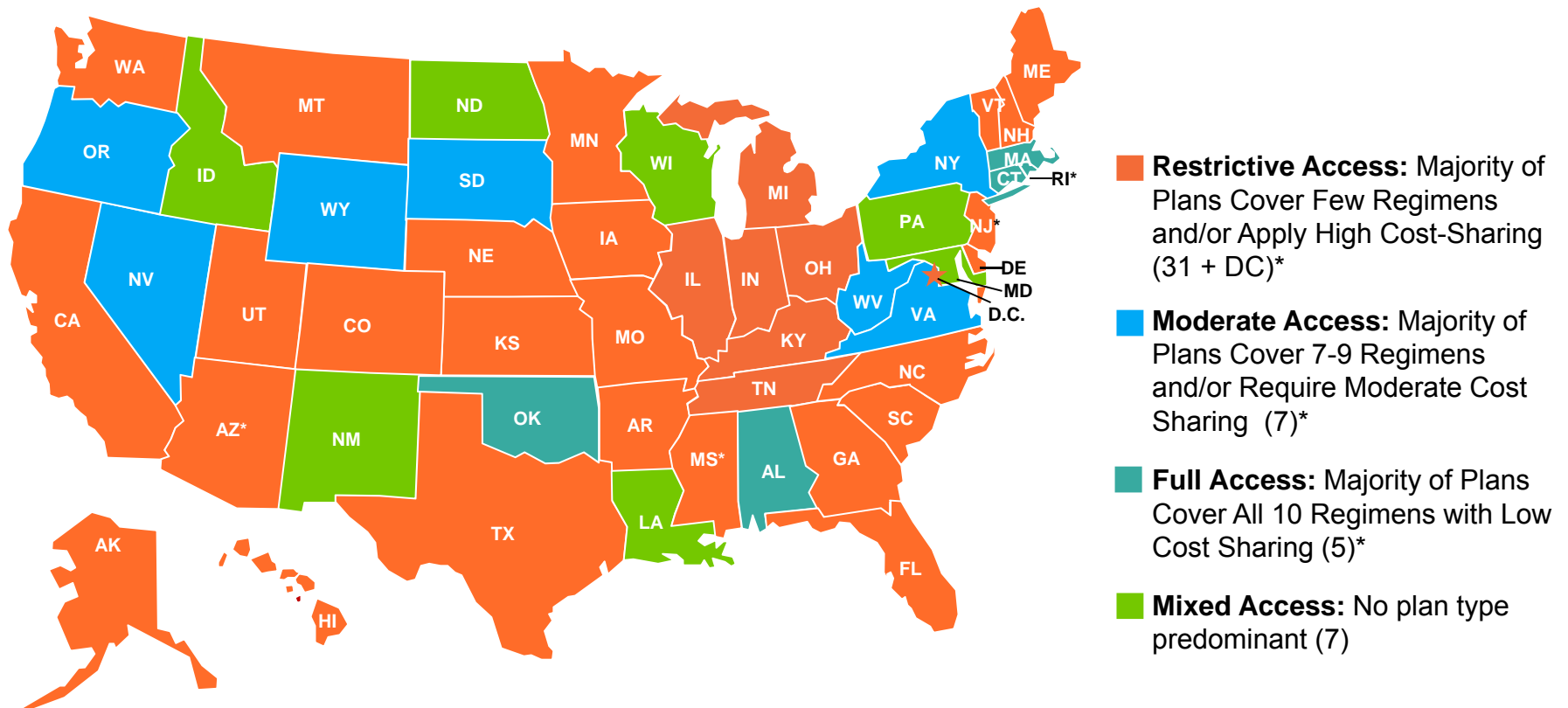Numbers may not total 100% due to rounding.
Source: Avalere Health PlanScape®, a proprietary analysis of exchange plan features, May 2015. This analysis is based on data collected by Managed Markets Insight & Technology, LLC and includes the 10 most frequently prescribed HIV regimens by market share in Q4 2014 as reported by Ipsos Healthcare U.S. HIV Monitor Q4 2014.
This analysis was funded by Gilead. Avalere maintained editorial control over the content of the analysis.

Avalere | 6

Few Plans Offer Both Full Access to the 10 Most Common HIV Regimens and Cost Sharing <$100

ACCESS TO HIV REGIMENS BASED ON COVERAGE AND COST SHARING

Full Access: 10 regimens covered and <$100/month per regimen

Moderate Access: 7-9 regimens covered and/or <$200/month per regimen

Restrictive Access: <7 regimens covered or >$200/month per regimen

National Distribution of Plans Shows Potential Barriers to Access (1 of 2)

MAJORITY OF PLANS IN 31 STATES COVER FEW REGIMENS OR REQUIRE SIGNIFICANT COST SHARING

Restrictive Access: Majority of Plans Cover Few Regimens and/or Apply High Cost-Sharing (31 + DC)*

Moderate Access: Majority of Plans Cover 7-9 Regimens and/or Require Moderate Cost Sharing (7)*

Full Access: Majority of Plans Cover All 10 Regimens with Low Cost Sharing (5)*

Mixed Access: No plan type predominant (7)

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National Distribution of Plans Shows Potential Barriers to Access (2 of 2)

- **Restrictive Access:** In 31 states (plus DC; see map above), the majority of plans offered in the state covered fewer than 7 of the 10 most common of HIV treatment regimens or required cost sharing over $200 per month.

- **Moderate Access:** In 7 states (MT, NV, NY, OR, SD, WV, WY), the majority of plans covered between 7-9 regimens or required cost sharing of $200 or less per month.

- **Full Access:** In the remaining 5 states (AL, CT, MA, OK, RI), the majority of plans available to patients offered access to all 10 treatment regimens with cost sharing of $100 or less.

- **Mixed Access:** In 7 states (ID, LA, MD, ND, NM, PA, WI) plans were evenly distributed across the access continuum with relatively equal numbers of plans covering between 1-6, 7-9, or all 10 of the 10 most commonly prescribed HIV treatment regimens with cost sharing spread across different levels.

Avalere | 9

2016 exchange market remains in flux: Pricing trends
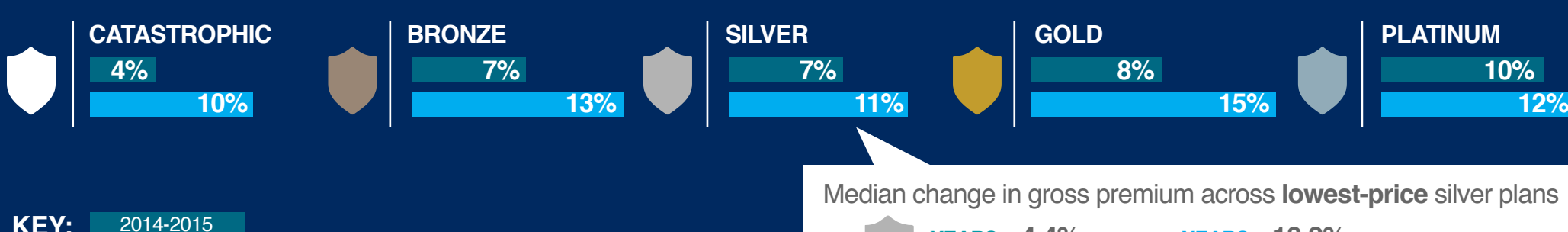## Findings across 50 states and DC

As of 11.04.2015

OVERALL

MARKET VIEW
Prices at county level

✓ Median rate increases across re-filed plans are higher than last year. Premiums of lowest-price plans have increased as well.

Median change in gross premium across **all re-filed plans**[1]

CATASTROPHIC	BRONZE	SILVER	GOLD	PLATINUM
4% / 10%	7% / 13%	7% / 11%	8% / 15%	10% / 12%

KEY: 2014-2015 / 2015-2016

Median change in gross premium across **lowest-price silver plans**
YEARS: 2014-'15 **4.4%** increase
YEARS: 2015-'16 **13.2%** increase

CONSUMER VIEW[2]
Prices weighted by QHP-eligible population

Percentage of consumers who will see change in net premium of the lowest-price plan[4]

2014-2015: 27%, 9%, 18%, 46%
2015-2016: 28%, 9%, 25%, 38%
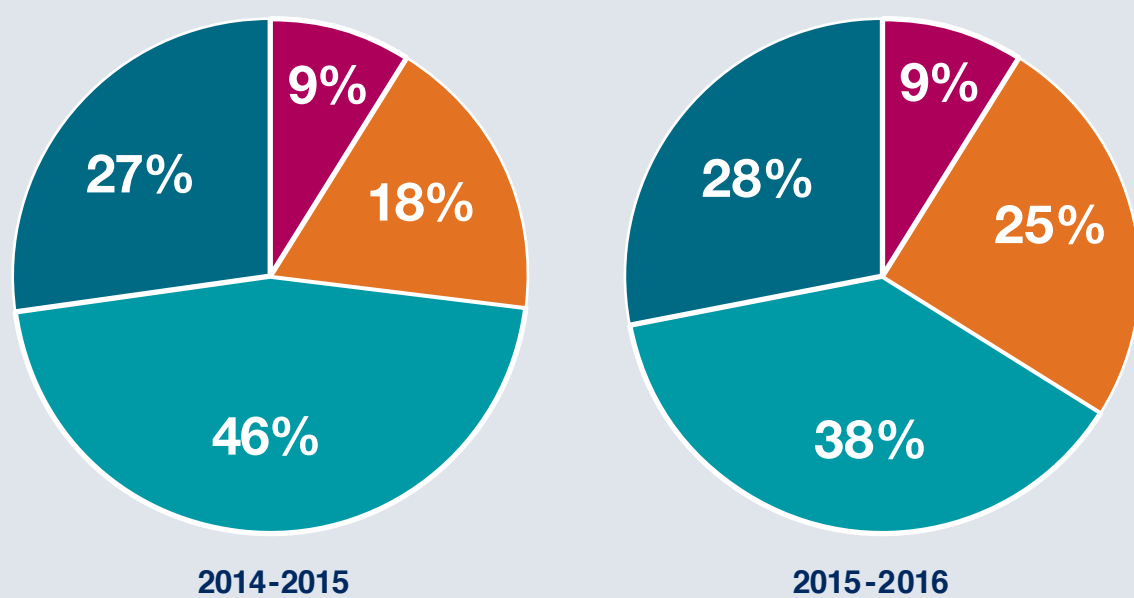
✓ Despite higher increases in lowest-price-plan gross premiums this year, a greater share of consumers seeing less expensive lowest-price silver net premiums this year than last year.

KEY:
- Over 10% decrease
- Within 10% decrease
- Within 10% increase
- Over 10% increase

BY GEOGRAPHY

MARKET & CONSUMER VIEW
Prices at county level

✓ In many states, this year's net premium changes are much different than last year's.

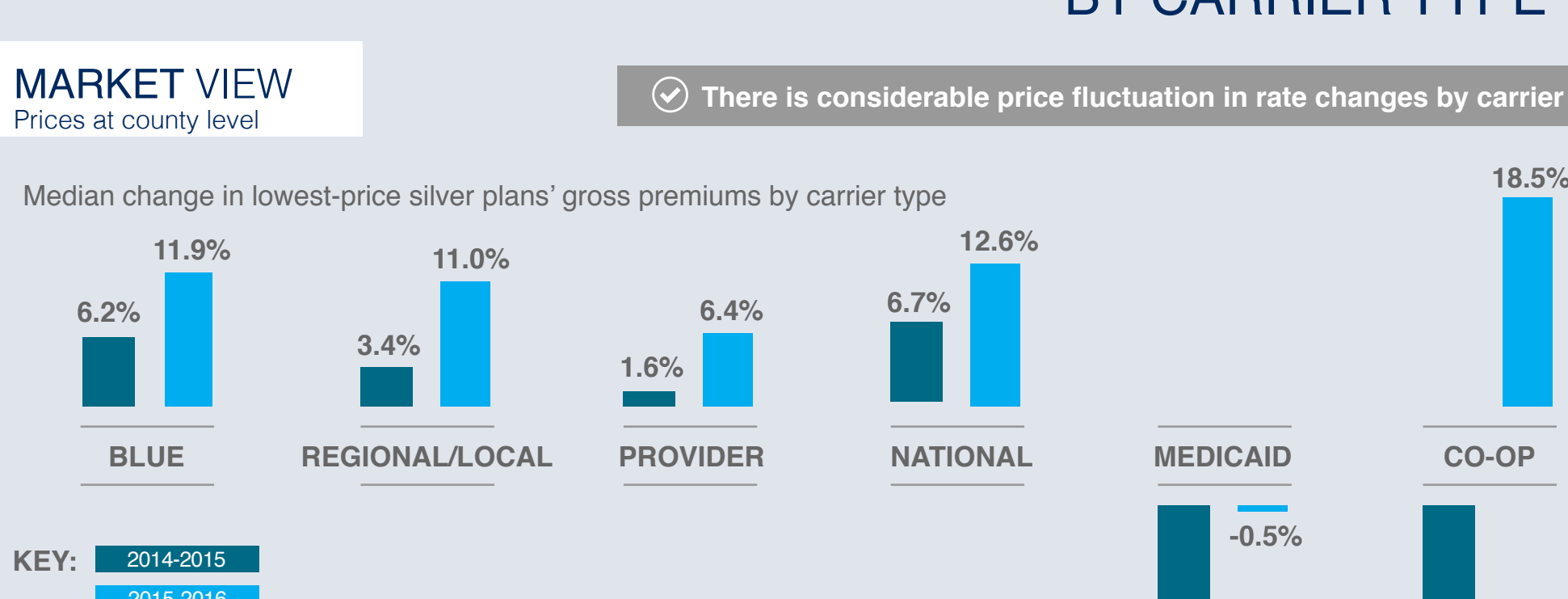QHP-eligible weighted average change in lowest-price silver plans' net premium

State	2014-2015	2015-2016
AK	16%	15%
AL	5%	8%
AR	4%	4%
AZ	20%	-11%
CA	6%	2%
CO	18%	-10%
CT	4%	2%
DC	1%	-3%
DE	3%	12%
FL	14%	3%
GA	12%	6%
HI	9%	25%
IA	9%	6%
ID	7%	8%
IL	2%	5%
IN	0%	-7%
KS	18%	-6%
KY	16%	10%
LA	0%	5%
MA	3%	1%
MD	2%	6%
ME	0%	5%
MI	16%	-1%
MN	11%	18%
MO	2%	9%
MS	0%	-1%
MT	22%	-2%
NC	4%	11%
ND	4%	6%
NE	12%	10%
NH	9%	-12%
NJ	1%	2%
NM	0%	-4% / -14%
NV	0%	1%
NY	1%	6%
OH	3%	1%
OK	26%	-3%
OR	9%	7%
PA	12%	9%
RI	9%	-5%
SC	11%	-1%
SD	13%	-1%
TN	4%	22%
TX	7%	4%
UT	10%	0%
VA	4%	2%
VT	8%	7%
WA	4%	-5%
WI	0%	2%
WV	6%	10%
WY	11%	4%

KEY: 2014-2015 / 2015-2016

PRICE CHANGES BY CARRIER TYPE

MARKET VIEW
Prices at county level

✓ There is considerable price fluctuation in rate changes by carrier type.

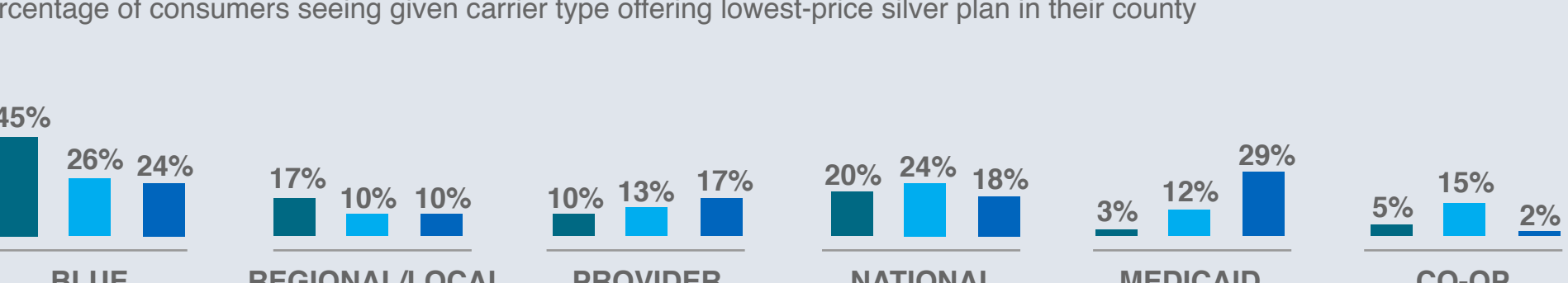Median change in lowest-price silver plans' gross premiums by carrier type

Carrier type	2014-2015	2015-2016
BLUE	6.2%	11.9%
REGIONAL/LOCAL	3.4%	11.0%
PROVIDER	1.6%	6.4%
NATIONAL	6.7%	12.6%
MEDICAID	-11.8%	-0.5%
CO-OP	18.5%	-8.8%

KEY: 2014-2015 / 2015-2016

CONSUMER VIEW[2]
Price leadership weighted by QHP-eligible population[3]

✓ Provider and Medicaid plans are gaining price leadership across eligible consumers.

Percentage of consumers seeing given carrier type offering lowest-price silver plan in their county

Carrier type	2014	2015	2016
BLUE	45%	26%	24%
REGIONAL/LOCAL	17%	10%	10%
PROVIDER	10%	13%	17%
NATIONAL	20%	24%	18%
MEDICAID	3%	12%	29%
CO-OP	5%	15%	2%

KEY: 2014 / 2015 / 2016

✓ Many consumers will see new price leaders in 2016 and may have to switch plans if they are seeking the lowest-price option.

Percentage of QHP-eligible consumers seeing new price leader in 2016

39% catastrophic	49% bronze	58% silver	55% gold	51% platinum

METHODOLOGY

The above findings are based on publicly available, approved 2016 individual market exchange rates as displayed on exchanges for all states and DC, compiled within the McKinsey Exchange Offering Database.

1. Plan is defined as a health insurance offering in which an individual can enroll, offered by a carrier
2. Consumer defined as all individuals eligible to purchase qualified health plans (QHP)
3. Price leader defined as carrier offering the lowest-price plan
4. Net premium takes into account subsidy based on consumers' geography, family size, age and income; we assume that these factors remain constant in 2016, since consumers have not yet supplied current income information during the open enrollment process

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AMA News Room

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Nov. 17, 2015

AMA Calls for Ban on Direct to Consumer Advertising of Prescription Drugs and Medical Devices

For immediate release:
Nov. 17, 2015

ATLANTA –Responding to the billions of advertising dollars being spent to promote prescription products, physicians at the Interim Meeting of the American Medical Association (AMA) today adopted new policy aimed at driving solutions to make prescription drugs more affordable.

Physicians cited concerns that a growing proliferation of ads is driving demand for expensive treatments despite the clinical effectiveness of less costly alternatives.

"Today's vote in support of an advertising ban reflects concerns among physicians about the negative impact of commercially-driven promotions, and the role that marketing costs play in fueling escalating drug prices," said AMA Board Chair-elect Patrice A. Harris, M.D., M.A. "Direct-to-consumer advertising also inflates demand for new and more expensive drugs, even when these drugs may not be appropriate."

The United States and New Zealand are the only two countries in the world that allow direct-to-consumer advertising of prescription drugs. Advertising dollars spent by drug makers have increased by 30 percent in the last two years to $4.5 billion, according to the market research firm Kantar Media.

New AMA policy also calls for convening a physician task force and launching an advocacy campaign to promote prescription drug affordability by demanding choice and competition in the pharmaceutical industry, and greater transparency in prescription drug prices and costs.

"Physicians strive to provide the best possible care to their patients, but increases in drug prices can impact the ability of physicians to offer their patients the best drug treatments," said Dr. Harris. "Patient care can be compromised and delayed when prescription drugs are unaffordable and subject to coverage limitations by the patient's health plan. In a worst-case scenario, patients forego necessary treatments when drugs are too expensive."

New AMA policy responds to deepened concerns that anticompetitive behavior in a consolidated pharmaceutical marketplace has the potential to increase drug prices. The AMA will encourage actions by federal regulators to limit anticompetitive behavior by pharmaceutical companies attempting to reduce competition from generic manufacturers through manipulation of patent protections and abuse of regulatory exclusivity incentives.

The AMA will also monitor pharmaceutical company mergers and acquisitions, as well as the impact of such actions on drug prices. Patent reform is a key area for encouraging greater market-based competition and new AMA policy will support an appropriate balance between incentives for innovation on the one hand and efforts to reduce regulatory and statutory barriers to competition as part of the patent system.

Last month, the Kaiser Family Foundation released a report 🌐 saying that a high cost of prescription drugs remains the public's top health care priority. In the past few years, prices on generic and brand-name prescription drugs have steadily risen and experienced a 4.7 percent spike in 2015, according to the Altarum Institute Center for Sustainable Health Spending.

The AMA's new policy recognizes that the promotion of transparency in prescription drug pricing and costs will help patients, physicians and other stakeholders understand how drug manufacturers set prices. If there is greater

understanding of the factors that contribute to prescription drug pricing, including the research, development, manufacturing, marketing and advertising costs borne by pharmaceutical companies, then the marketplace can react appropriately.

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