

REALIZING HEALTH REFORM'S POTENTIAL

SEPTEMBER 2016

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Commonwealth Fund pub. 1899 Vol. 28

How the ACA's Health Insurance Expansions Have Affected Out-of-Pocket Cost-Sharing and Spending on Premiums

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ABSTRACT

Issue: One important benefit gained by the millions of Americans with health insurance through the Affordable Care Act (ACA) is protection from high out-ofpocket health spending. While Medicaid unambiguously reduces out-of-pocket premium and medical costs for low-income people, it is less certain that marketplace coverage and other types of insurance purchased to comply with the law's individual mandate also protect from high health spending. Goal: To compare out-of-pocket spending in 2014 to spending in 2013; assess how this spending changed in states where many people enrolled in the marketplaces relative to states where few people enrolled; and project the decline in the percentage of people paying high amounts out-of-pocket. Methods: Linear regression models were used to estimate whether people under age 65 spent above certain thresholds. Key findings and conclusions: The probability of incurring high out-of-pocket costs and premium expenses declined as marketplace enrollment increased. The percentage reductions were greatest among those with incomes between 250 percent and 399 percent of poverty, those who were eligible for premium subsidies, and those who previously were uninsured or had very limited nongroup coverage. These effects appear largely attributable to marketplace enrollment rather than to other ACA provisions or to economic trends.

BACKGROUND

High out-of-pocket health costs have long been a widespread problem in the United States, for the uninsured and insured alike. About 53 percent of Americans without health coverage have trouble paying their medical bills, while another 20 percent of those with coverage also struggle to meet health costs. Regardless of insurance status, an estimated 20 percent of individuals under age 65 have trouble with medical bills.

Since 2014, when the Affordable Care Act's health insurance marketplaces opened and states were able to expand Medicaid eligibility under the law, the rate of growth in out-of-pocket spending has slowed and the share of Americans reporting medical bill problems and cost-related delays has declined.⁴ As of March 2016, nearly 28 million Americans had purchased health coverage through the marketplaces or obtained Medicaid coverage as a result of the expansion.⁵

Prior studies have shown that Medicaid expansions reduce out-of-pocket spending. That is likely because Medicaid requires no cost-sharing or premium payments for individuals with household incomes below 133 percent of the federal poverty level. For people with household incomes between 133 percent and 250 percent of the poverty level, the ACA offers cost-sharing subsidies for private plans purchased through the marketplaces. People with incomes between 133 percent and 400 percent of poverty, meanwhile, are able to get subsidies for marketplace plans.

The ACA's insurance regulations may also have contributed to the lower out-of-pocket spending seen since the coverage expansions, both for the newly insured and for people who shifted from their prior individual market coverage to marketplace plans. Under the ACA, health plans may no longer increase rates based on health status or gender, and new "rate bands" reduce premiums for older people. Coverage can no longer exclude preexisting conditions. Plans are required to offer preventive benefits, and they cannot impose cost-sharing on these benefits (including contraceptive coverage, which has lowered out-of-pocket spending for many newly insured women). Many plans sold in the marketplaces also offer a small number of primary care visits without cost-sharing. In fact, more than half of the plans offered in the individual market prior to the introduction of the marketplaces offered fewer benefits or imposed more cost-sharing than the plans allowed by the ACA.

Still, some observers—pointing to the ACA's individual mandate, high cost-sharing in ACA standard (silver-level) plans, modest premium subsidies for higher-income people, and higher premiums for young, healthy people previously enrolled in nongroup coverage—have speculated that out-of-pocket spending on health care services or insurance premiums would, on average, increase.⁸

In this brief, we assess how out-of-pocket cost-sharing expenses and out-of-pocket spending on premiums changed between 2013 and 2014, as the ACA coverage expansions were implemented, for people with incomes above the Medicaid eligibility threshold. We also compare the magnitude of change in out-of-pocket spending in states where many people enrolled in the marketplaces relative to states where few people enrolled. (Because of the troubled rollout of the marketplaces, enrollment rates have differed by state and over time: in 2014, enrollment in marketplace coverage across the states varied from 0.2 percent to 6.1 percent.) Finally, we use these estimates, together with variation in marketplace enrollment across states, to project the decline by state in the percentage of people paying high amounts out-of-pocket.

Our analysis focuses on the experiences of three income groups: 1) people living between 133 percent and 249 percent of the federal poverty level (FPL), who are eligible for cost-sharing reductions and premium subsidies in the marketplaces; 2) those between 250 percent and 399 percent of FPL, who are eligible for premium subsidies but not cost-sharing reductions; and 3) those at 400 percent of FPL and above, who are ineligible for cost-sharing reductions and premium subsidies. Our analyses controlled for the Medicaid expansion set forth by the ACA as well as for other factors that might affect spending, including year and state of residence. (See How This Study Was Conducted.)

FINDINGS

Overall Effects of ACA Coverage Expansions on Out-of-Pocket Expenses

In any given year, health care spending is concentrated among a small number of people; most people spend very little on care. Consistent with this pattern, in 2013, prior to the launch of the ACA marketplaces, about 31 percent of Americans with incomes above 133 percent FPL spent \$500 or more on out-of-pocket cost-sharing expenses in 2013, while relatively few people—less than 3 percent in any income group—incurred out-of-pocket cost-sharing expenses as high as \$5,000 (Exhibit 1). As shown in the exhibit, between 2013 and 2014, the share of Americans with incomes above 133 percent of FPL who spent more than \$500 out-of-pocket on cost-sharing expenses declined by about 2.3 points; the share who spent more than \$2,000 declined by 0.3 points, with this decline concentrated among those with lower incomes; and the share who spent more than \$5,000 decreased by 0.2 percentage points.

Exhibit 1. Percentage of the Population Under Age 65 That Exceeded Out-of-Pocket Spending Thresholds in 2013 and 2014

Spent above given level on out-of-pocket spending	(1 133%-24	•	(2 250%-39	•	(3 400%		To [.] (133%	
	2013	2014	2013	2014	2013	2014	2013	2014
\$500	21.2%	20.0%	29.4%	26.8%	38.1%	35.5%	31.2%	29.0%
\$2,000	6.4%	5.9%	8.7%	8.0%	11.2%	11.1%	9.2%	8.9%
\$5,000	1.7%	1.5%	2.4%	1.9%	2.7%	2.5%	2.3%	2.1%

Data: Current Population Surveys, 2010-2014.

Although most people use very few services, those with private insurance nonetheless have to pay premiums. Thus, a far larger share of Americans spent above these thresholds on the combination of premium and out-of-pocket cost-sharing payments (Exhibit 2). In 2013, about half of those with incomes above Medicaid-eligibility levels spent more than \$500 on premiums and out-of-pocket expenses combined, and about 10 percent spent more than \$5,000 on these combined expenses. Between 2013 and 2014, the share spending more than \$500 or \$2,000 on combined cost-sharing and premium expenses did not change significantly. The share spending more than \$5,000 increased by about 0.1 percent, with the increase concentrated among those with incomes above 250 percent FPL.

Exhibit 2. Percentage of the Population Under Age 65 That Exceeded Combined Out-of-Pocket and Premium Spending Thresholds in 2013 and 2014

Spent above given level on combined out-of-pocket	(1) 133%-249% FPL		(2) 250%-399% FPL		(3) 400%+ FPL		Total (133%+ FPL)	
and premium spending	2013	2014	2013	2014	2013	2014	2013	2014
\$500	37.8%	37.9%	50.0%	49.1%	60.6%	59.0%	51.7%	50.6%
\$2,000	18.4%	18.4%	26.3%	26.6%	33.5%	33.6%	27.5%	27.6%
\$5,000	6.5%	6.0%	9.4%	9.7%	13.3%	13.7%	10.5%	10.6%

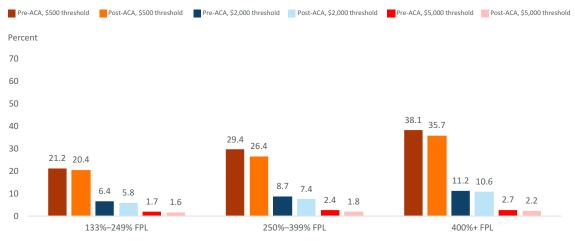
Data: Current Population Surveys, 2010-2014.

Effect of Increased ACA Marketplace Enrollment on Out-of-Pocket Expenses

We found the likelihood that people with incomes above 133 percent FPL spent above the out-of-pocket cost-sharing thresholds generally decreased as marketplace enrollment increased (Exhibit 3). By mid-2014, about 2.6 percent of the adult population under age 65 was enrolled in a marketplace plan. This rise in enrollment (from zero in 2013) was associated with about a two-percentage-point decline in the share of Americans spending more than \$500 on out-of-pocket expenses, a one-point decline in the share spending more than \$2,000, and a 0.4-point decline in the share spending more than \$5000. These reductions are large relative to the baseline rates: they are equal to 7 percent, 9 percent, and 17 percent, respectively, of the share of individuals who had out-of-pocket costs exceeding these thresholds in 2013.

Exhibit 3
Change in Probability That Out-of-Pocket Spending Equals or Exceeds
Thresholds as Marketplace Enrollment Increases

As enrollment increases from 0% to 2.6% of population, adjusted for changing population characteristics



Notes: Average marketplace enrollment in June 2014 was 2.6 percent of the adult population. Regression models adjust for marketplace enrollment rate (the number of individuals enrolled divided by the total adult population), state Medicaid expansion status (year interacted with whether a state had expanded Medicaid), and year, and control for age, work status, gender, education level, marital status, and state dummies.

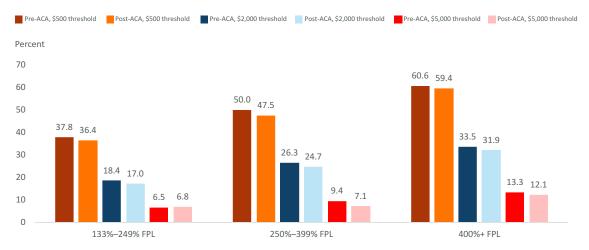
Data: Current Population Surveys, 2010–2014, and Charles Gaba, 2016.

While higher-income groups—those most likely to spend more out-of-pocket in 2013—saw the largest reductions in terms of dollars spent, the reductions in percentage terms are greatest among those with incomes between 250 percent and 399 percent FPL. This group, which was eligible for premium subsidies in the marketplaces, may have shifted from being uninsured or from having limited nongroup coverage (which may have included high deductibles or conditions exclusions) to having better coverage through the marketplaces.

The pattern for combined premiums and out-of-pocket spending was similar (Exhibit 4). The increase in marketplace enrollment was associated with about a 1.7-percentage-point reduction in the probability of spending over \$500 or \$2,000 on combined premiums and out-of-pocket costs, and a 1.1-percentage-point reduction in the probability of spending over \$5,000 on these costs. These declines are 3 percent, 6 percent, and 11 percent, respectively, of the share of individuals who had

Exhibit 4
Change in Probability That Combined Out-of-Pocket and Premium Spending Equals or Exceeds Thresholds as Marketplace Enrollment Increases

As enrollment increases from 0% to 2.6% of population, adjusted for changing population characteristics



Notes: Average marketplace enrollment in June 2014 was 2.6 percent of the adult population. Regression models adjust for marketplace enrollment rate (the number of individuals enrolled divided by the total adult population), state Medicaid expansion status (year interacted with whether a state had expanded Medicaid), and year, and control for age, work status, gender, education level, marital status, and state dummies.

Data: Current Population Surveys, 2010–2014, and Charles Gaba, 2016.

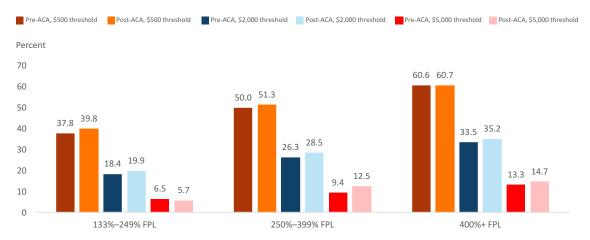
out-of-pocket-plus-premium costs exceeding these thresholds in 2013. The relationship between marketplace enrollment and combined out-of-pocket and premium spending is likely attributable to: 1) the availability of subsidies, which may attract those who were previously uninsured, some of whom may have had much higher cost-sharing expenses; 2) the opportunity for those with existing nongroup coverage to switch to subsidized marketplace coverage, providing them with relief from both high cost-sharing and high premium expenses; and 3) the existence of regulated coverage options in the marketplaces that may have offered more protections from cost-sharing and premium expenses to older, sicker, higher-income enrollees.

Effects of ACA Regulations and Changes in Addition to Enrollment in Marketplace Plans

The rollout of the marketplaces occurred as many other ACA reforms were being implemented and as the nation was recovering from the economic recession. Analyses which control for marketplace enrollment rates and state Medicaid expansion status to account for these effects, however, do not show large or statistically significant changes between 2013 and 2014 in the probability of spending above out-of-pocket (excluding premiums) cost-sharing thresholds (Appendix Tables 1 and 2).

By contrast, spending on premiums-plus-out-of-pocket-spending generally rose between 2013 and 2014, after controlling for enrollment effects (Exhibit 5). After removing the estimated effects of marketplace enrollment, we find that the share of Americans spending over \$500 on combined premiums and out-of-pocket expenses rose by about one percentage point, the share spending over \$2,000 rose by two percentage points, and the share spending over \$5,000 rose by one percentage point. In separate analyses, we found that these effects were largely driven by people who had employer-sponsored coverage at some point in 2014 (Appendix Table 5). This is consistent with data

Exhibit 5
Effects of Economic, Health System, and Nonmarketplace Enrollment Changes on Probability That Combined Out-of-Pocket and Premium Spending Equals or Exceeds Thresholds Between 2013 and 2014



Notes: Average marketplace enrollment in June 2014 was 2.6 percent of the adult population. Regression models adjust for marketplace enrollment rate (the number of individuals enrolled divided by the total adult population), state Medicaid expansion status (year interacted with whether a state had expanded Medicaid), and year, and control for age, work status, gender, education level, marital status, and state dummies. Estimates based on 2014 year dummy (compared to 2013).

Data: Current Population Surveys, 2010-2014, and Charles Gaba, 2016.

from the Kaiser Family Foundation's Employer Health Benefits survey that shows a modest increase in premiums (3%) between 2013 and 2014 for families covered by employer insurance plans, and a 7 percent increase in employer plan deductibles over this period.

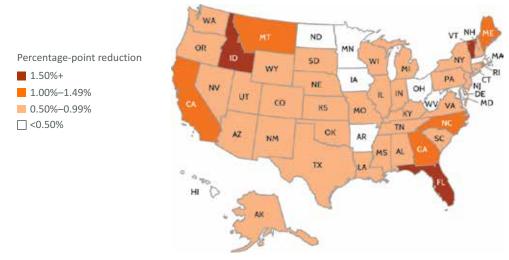
State Effects

Our estimates suggest that declines in out-of-pocket spending were greatest in states that had the largest increases in enrollment in their respective marketplaces (Exhibit 6). In 2014, marketplace enrollment, as a share of the adult population, was greatest in Florida, Idaho, and Vermont. In these states, our simulation estimates suggest, the share of state residents with out-of-pocket spending exceeding \$2,000 fell by more than 1.5 percent. By contrast, the states with the smallest declines in out-of-pocket spending were those in which few residents purchased marketplace plans. In Hawaii, Maryland, Massachusetts, and Minnesota, where the state marketplace rollouts were particularly unsuccessful, and in Iowa, Ohio, and West Virginia, where enrollment was low, declines in out-of-spending were smaller. Our estimates suggest the share of these states' residents with more than \$2,000 in out-of-pocket spending fell by less than 0.5 percent.

Exhibit 6

Reduction in Probability That Out-of-Pocket Health Spending Equals or Exceeds \$2,000 as Marketplace Enrollment Rate Increases

As enrollment rate increases from zero to state rate in 2014, adjusted for changing population characteristics



Note: Coefficients on marketplace enrollment rates from regressions are multiplied by each state's average marketplace enrollment rate (2.6% is the national average) to provide adjusted reduction in probability of spending at or above threshold.

Data: Current Population Survey, 2014, and Charles Gaba, 2016.

DISCUSSION

Prior research shows that expansions of coverage through the ACA increased the proportion of Americans with health insurance. We find that residents of states where marketplace enrollment increased most also saw significant reductions in their combined out-of-pocket-and-premium costs relative to the pre-ACA period. While more Americans are insured, and hence are paying premiums for insurance, the net effect of subsidies, cost-sharing reductions, out-of-pocket protections, and rating changes has been to reduce the number of people facing substantial costs.

Despite this good news, it is important to note that many Americans continue to find that premiums and cost-sharing impose a large burden that makes it difficult to access care. Prior analyses that have looked at the ratio of expenses to incomes continue to find that many people are incurring health expenses that exceed 10 percent of their income. Nearly 11 percent of those in our sample incurred total out-of-pocket expenses exceeding \$5,000, about 10 percent of income for the median U.S. family.

The design of marketplace subsidies is such that individuals who receive subsidies are largely protected from increases in overall health care costs. The majority of Americans, however, are insured through employers; for them, increases in health care costs lead to rising spending, particularly on premiums. Containing overall health care costs is therefore critical to maintaining both access to care and protection against high out-of-pocket spending.

HOW THIS STUDY WAS CONDUCTED

We drew demographic and health spending data on people under age 65 from the U.S. Current Population Survey CPS annual (March) Social and Economic Supplements, 2010–2014. Marketplace enrollment rates for each state were drawn from the weekly Private QHP (Qualified Health Plan) Spreadsheets created by Charles Gaba, which draw enrollment data from monthly reports released by the Centers for Medicare and Medicaid Services and the U.S. Department of Health and Human Services. Estimates come from the "Private Exchange Plans" column for the last week of June (week 24). Medicaid expansion status was set to zero for months before 2014 for most states, and set to one when any states expanded either early (California, Connecticut, Colorado, District of Columbia, Minnesota, Missouri, New Jersey, Washington) or in 2014. The 2013 CPS data is taken from the redesigned portion, for consistency with 2014 CPS medical spending data.

Marketplace enrollment varied across states in 2014 from 0.2 percent to 6.1 percent, and this variation was used to assess effects on rates of spending above thresholds. On average, across the country, about 2.6 percent of the adult, nonelderly population was enrolled in a marketplace plan in mid-2014.

We fit robust linear regression models to see whether an individual spent above out-of-pocket as well as premium plus out-of-pocket thresholds. The models include the marketplace enrollment rate (the number of individuals enrolled divided by the total adult population) and control for other factors that might have changed the probability that state residents exceeded our spending thresholds. We report coefficients on marketplace enrollment rates (Exhibit 3 and Exhibit 4) and on the 2014 year dummy (Exhibit 5). The appendix tables report both robust standard errors and standard errors clustered at the state by year level.

We controlled for the Medicaid expansion status of the Respondent's state to ensure that we estimated marketplace enrollment effects separately from other ACA provisions.

To further separate marketplace enrollment effects from broad economic trends, year and state dummies are also included. Regression analyses also control for age, work status, gender, education level, and marital status. The product of coefficients on marketplace enrollment rates from these regressions are multiplied by the average marketplace enrollment rate (2.6%) and summed with baseline rates (percent spending above thresholds in 2013) to provide regressionadjusted probabilities of spending above thresholds in 2014 (Exhibit 3 and Exhibit 4). State-level regression-adjusted reduction in probabilities of spending above thresholds (Exhibit 5) are constructed by applying the coefficient on marketplace enrollment rate (in regressions on meeting or exceeding out-of-pocket health spending thresholds) to each state's marketplace enrollment rate.

Appendix Table 1. Percentage of the Population Under Age 65 That Exceeded Out-of-Pocket Spending Thresholds in 2013 and 2014

Spent above given level on out-of-pocket spending	(1) 133%-249% FPL		(2) 250%-399% FPL		(3) 400%+ FPL		Total (133%+ FPL)	
	2013	2014	2013	2014	2013	2014	2013	2014
\$250	30.6%	28.5%	40.7%	37.3%	50.6%	46.3%	42.6%	39.1%
\$500	21.2%	20.0%	29.4%	26.8%	38.1%	35.5%	31.2%	29.0%
\$1,000	12.2%	11.6%	17.7%	15.8%	22.9%	21.7%	18.6%	17.4%
\$2,000	6.4%	5.9%	8.7%	8.0%	11.2%	11.1%	9.2%	8.9%
\$5,000	1.7%	1.5%	2.4%	1.9%	2.7%	2.5%	2.3%	2.1%
\$10,000	0.4%	0.3%	0.4%	0.4%	0.5%	0.6%	0.4%	0.5%

Data: Current Population Surveys, 2010-2014, and Charles Gaba, 2016.

Appendix Table 2. Percentage of the Population Under Age 65 That Exceeded Combined Out-of-Pocket and Premium Spending Thresholds in 2013 and 2014

Spent above given level on combined out-of-pocket	(1) 133%-249% FPL		(2) 250%-399% FPL		(3) 400%+ FPL		Total (133%+ FPL)	
and premium spending	2013	2014	2013	2014	2013	2014	2013	2014
\$250	48.7%	48.1%	61.0%	60.1%	71.7%	69.7%	62.7%	61.3%
\$500	37.8%	37.9%	50.0%	49.1%	60.6%	59.0%	51.7%	50.6%
\$1,000	28.3%	28.4%	38.7%	38.5%	47.6%	47.2%	40.0%	39.8%
\$2,000	18.4%	18.4%	26.3%	26.6%	33.5%	33.6%	27.5%	27.6%
\$5,000	6.5%	6.0%	9.4%	9.7%	13.3%	13.7%	10.5%	10.6%
\$10,000	1.3%	1.3%	2.0%	2.0%	3.2%	3.1%	2.4%	2.3%

Data: Current Population Surveys, 2010–2014, and Charles Gaba, 2016.

Appendix Table 3. Association Between Marketplace Enrollment Rate and Out-of-Pocket Medical Spending, by Household Income, 2010–2014

Regressions on spending above given level (\$)	(1) 133%-249% FPL	(2) 250%-399% FPL	(3) 400%+ FPL	Total (133%+ FPL)
	-0.166	-0.677*	-0.728**	-0.581***
\$250	(0.320)	(O.358)	(O.286)	(O.185)
	(O.511)	(O.44O)	(O.431)	(0.380)
	-0.336	-1.158***	-0.903***	-0.843***
\$500	(O.281)	(0.325)	(O.273)	(O.171)
	(0.372)	(0.439)	(0.405)	(0.295)
	-0.363	-0.686**	-0.482**	-0.526***
\$1,000	(O.227)	(O.274)	(O.238)	(O.145)
	(0.260)	(0.357)	(0.263)	(O.213)
	-0.221	-0.505**	-0.236	-0.320***
\$2,000	(O.167)	(0.210)	(O.185)	(O.111)
	(0.233)	(O.181)	(O.252)	(0.120)
	-0.043	-0.231**	-0.164*	-0.149**
\$5,000	(0.090)	(O.113)	(0.095)	(0.058)
	(O.112)	(0.092)	(O.115)	(0.063)
	0.001	0.079	0.078	0.054*
\$10,000	(0.046)	(0.058)	(0.053)	(O.O31)
	(0.042)	(0.049)	(0.064)	(0.036)
Population size	159,354	160,722	259,079	579,155

^{*} p<0.1

Notes: The models include marketplace enrollment rate (the number of individuals enrolled divided by the total adult population), Medicaid expansion status (year interacted with whether a state had expanded Medicaid), and year, and control for age, work status, gender, education level, marital status, and state dummies. First set of standard errors (and all significance level asterisks) use robust error correction only. Second set of standard errors cluster on state*year.

Data: Current Population Surveys, 2010-2014, and Charles Gaba, 2016.

^{**} p<0.05

^{***} p<0.01

Appendix Table 4. Association Between Marketplace Enrollment Rate and Combined Out-of-Pocket and Premium Spending, by Household Income, 2010–2014

Regressions on spending above given level (\$)	(1) 133%-249% FPL	(2) 250%-399% FPL	(3) 400%+ FPL	Total (133%+ FPL)
	-0.629*	-0.500	-0.131	-0.408**
\$250	(0.350)	(0.346)	(0.254)	(O.178)
	(0.569)	(0.301)	(0.246)	(0.248)
	-0.531	-0.963***	-0.466*	-0.660***
\$500	(O.331)	(O.348)	(0.265)	(O.179)
	(0.432)	(0.287)	(0.355)	(O.231)
	-0.639**	-0.947***	-0.452*	-0.677***
\$1,000	(0.309)	(O.34O)	(0.268)	(O.175)
	(0.334)	(0.349)	(0.365)	(0.203)
	-0.527*	-0.609*	-0.621**	-0.631***
\$2,000	(O.273)	(0.316)	(O.261)	(O.164)
	(0.264)	(O.254)	(O.414)	(0.165)
	0.105	-0.861***	-0.478**	-0.437***
\$5,000	(O.178)	(0.216)	(0.200)	(O.119)
	(O.162)	(0.179)	(O.185)	(0.100)
	0.004	0.040	0.112	0.059
\$10,000	(0.096)	(0.109)	(O.112)	(0.064)
	(0.078)	(0.078)	(0.130)	(0.050)
Population size	159,354	160,722	259,079	579,155

^{*} p<0.1

Notes: The models include marketplace enrollment rate (the number of individuals enrolled divided by the total adult population), Medicaid expansion status (year interacted with whether a state had expanded Medicaid), and year, and control for age, work status, gender, education level, marital status, and state dummies. First set of standard errors (and all significance level asterisks) use robust error correction only. Second set of standard errors cluster on state*year.

Data: Current Population Surveys, 2010-2014, and Charles Gaba, 2016.

^{**} p<0.05

^{***} p<0.01

Appendix Table 5. Change in Combined Out-of-Pocket and Premium Spending in 2014 (compared to 2013), Adjusted for Marketplace Enrollment, by Household Income

Regressions on spending above given level (\$)	(1) 133%-249% FPL	(2) 250%-399% FPL	(3) 400%+ FPL	Total (133%+ FPL)
	0.020*	0.004	-0.010	0.003
\$250	(O.O12)	(O.O12)	(0.009)	(0.006)
	(0.017)	(0.012)	(O.O11)	(0.009)
	0.020*	0.013	0.001	0.011*
\$500	(O.O12)	(O.O12)	(0.009)	(0.006)
	(0.014)	(O.O11)	(0.013)	(0.009)
	0.019*	0.019	0.012	0.017***
\$1,000	(O.O11)	(O.O12)	(0.009)	(0.006)
	(0.012)	(0.012)	(0.014)	(0.009)
	0.015	0.022**	0.017*	0.019***
\$2,000	(0.010)	(O.O11)	(0.009)	(0.006)
	(0.010)	(0.009)	(0.013)	(0.007)
	-0.008	0.031***	0.014**	0.013***
\$5,000	(0.006)	(0.008)	(0.007)	(0.004)
	(0.006)	(0.006)	(0.006)	(0.004)
	0.001	-0.001	-0.004	-0.002
\$10,000	(0.003)	(0.004)	(0.004)	(0.002)
	(0.002)	(0.003)	(0.004)	(0.002)
Population size	159,354	160,722	259,079	579,155

^{*} p<0.1

Notes: The models include marketplace enrollment rate (the number of individuals enrolled divided by the total adult population), Medicaid expansion status (year interacted with whether a state had expanded Medicaid), and year, and control for age, work status, gender, education level, marital status, and state dummies. First set of standard errors (and all significance level asterisks) use robust error correction only. Second set of standard errors cluster on state*year.

Data: Current Population Surveys, 2010-2014, and Charles Gaba, 2016.

^{**} p<0.05

^{***} p<0.01

NOTES

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- ⁶ The ACA includes a requirement that health premiums may not vary with age by more than 3:1 for people over age 21. This means that premiums for a 64-year-old person cannot be more than three times as high as those for a 21-year-old person.
- The ACA legislation set the Medicaid threshold at 133 percent of the federal poverty level (FPL), but also changed the methodology for calculating income, so that the new threshold is closer to 138 percent FPL. See http://obamacarefacts.com/obamacares-medicaid-expansion; and J. R. Gabel, R. Lore, R. D. McDevitt et al., "More Than Half of Individual Health Plans Offer Coverage That Falls Short of What Can Be Sold Through Exchanges as of 2014," Health Affairs Web First, published online May 23, 2012.
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- It is important to note that while implementation of the ACA was the biggest change that occurred in the health insurance market between 2013 and 2014, health care costs also have changed, continuing to rise, albeit moderately. Data from the Kaiser Family Foundation's Employer Health Benefits survey shows a modest increase in premiums (3%) between 2013 and 2014 for families covered by employer insurance plans, and a 7 percent increase in employer plan deductibles over this period. See G. Claxton, M. Rae, N. Panchal et al., *Employer Health Benefits* 2014 Annual Survey (Henry J. Kaiser Family Foundation and Health Research & Educational Trust, 2014).

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Editorial support was provided by Chris Hollander.

