



Issue Brief

Choosing the “Best” Plan in a Health Insurance Exchange: Actuarial Value Tells Only Part of the Story

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ABSTRACT: In the health insurance exchanges that will come online in 2014, consumers will be able to compare health plans with respect to actuarial value, or the percentage of health care costs that a plan would pay for a standard population. This analysis illustrates the out-of-pocket costs that might result from plans with various plan designs and actuarial values. We find that average out-of-pocket expense declines as actuarial values rise, but two plans with similar actuarial values can produce very different outcomes for a given person. The overall affordability of a plan also will be influenced by age rating, income-related premium subsidies, and out-of-pocket subsidies. Actuarial value is a useful starting point for selecting a plan, but it does not pinpoint which plan will produce the best overall value for a particular person.

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OVERVIEW

Beginning in 2014, up to 23 million people will purchase health insurance each year through state health insurance exchanges, which are state-level entities that will structure the markets for individual and small-group insurance.¹ Market reforms in the Affordable Care Act seek to improve the quality and availability of affordable coverage. The law will eliminate underwriting, guarantee the availability of coverage, limit the extent of age rating, and require that all plans offered through the exchanges meet a uniform standard of essential health benefits at four levels of cost-sharing. Finally, exchanges will administer subsidies to reduce premiums and out-of-pocket health care costs for people with incomes below 400 percent of the federal poverty level.

The exchanges will facilitate choice by classifying plans according to their actuarial values. As defined in the health reform legislation, actuarial value is the expected percentage of total incurred and covered health care costs that a plan would pay for a standard population.² For instance, if a hypothetical standard population incurs \$100 million in covered medical expenses and their plan pays

an estimated \$80 million in benefits, then the actuarial value for that plan would be 80 percent. Together with the requirement for each exchange plan to offer a comprehensive package of “essential health benefits,” this measure will provide consumers with a useful summary measure of plan value. Exchanges will classify plans into four tiers based on their actuarial value: bronze (60%), silver (70%), gold (80%), and platinum (90%). For this analysis, we classify all plans according to this framework. For instance, we classify a plan with an actuarial value of 76 percent as a silver plan.

The exchanges will also simplify plan comparisons by creating Web sites with standardized information about each plan’s premium, benefit structure, and cost-sharing provisions.³ Today, such comparative information—including plans’ price and quality rankings as well as data on the availability of in-network providers—is unavailable or not reported in a standard fashion. Thus, prospective buyers of individual insurance can only compare plans on a few basic metrics, such as premiums and deductibles, which are not always sufficient to identify the best plan.

The overall affordability of health care depends on both premiums and out-of-pocket costs. New premium subsidies available to those with incomes below 400 percent of the federal poverty level will make insurance more affordable for many people (Exhibit 1). Families below 250 percent of poverty will also qualify for cost-sharing subsidies that will effectively increase the actuarial value of their plans.

FINDINGS

We estimated the actuarial value of plans offered in 2010 by employers responding to the Kaiser Family Foundation/Health Research and Educational Trust Employer Health Benefits Survey. We then selected 20 plans with actuarial values ranging from 60 percent to 98 percent to examine the costs that would result for particular adults. We selected adults at the 5th percentile, the 25th percentile, the 50th percentile, and the 95th percentile of charges. (See [Data and Methods box](#) for a complete explanation of the data sources and study methodology.) We estimate out-of-pocket spending, premiums, and affordability by income and age.

Exhibit 1. Premium Tax Credits and Cost-Sharing Protections Under the Affordable Care Act, 2012

Federal poverty level	Income	Premium contribution as a share of income	Out-of-pocket limits	Actuarial value: silver plan
<133%	S: <\$14,856 F: <\$30,657	2% (or Medicaid)		94%
133%–149%	S: \$14,856 – <\$16,755 F: \$30,657 – <\$34,575	3.0%–4.0%	S: \$2,017 F: \$4,034	94%
150%–199%	S: \$16,755 – <\$22,340 F: \$34,575 – <\$46,100	4.0%–6.3%		87%
200%–249%	S: \$22,340 – <\$27,925 F: \$46,100 – <\$57,625	6.3%–8.05%	S: \$3,025 F: \$6,050	73%
250%–299%	S: \$27,925 – <\$33,510 F: \$57,625 – <\$69,150	8.05%–9.5%		70%
300%–399%	S: \$33,510 – <\$44,680 F: \$69,150 – <\$92,200	9.5%	S: \$4,033 F: \$8,066	70%
400%+	S: \$44,680+ F: \$92,200+	—	S: \$6,050 F: \$12,100	—

Four levels of cost-sharing:

- 1st tier (bronze) actuarial value: 60%
- 2nd tier (silver) actuarial value: 70%
- 3rd tier (gold) actuarial value: 80%
- 4th tier (platinum) actuarial value: 90%

Catastrophic policy with essential benefits package available to young adults and people who cannot find plan premium ≤8% of income.

Notes: Federal poverty level 2012 levels are shown. Actuarial values are the average percent of medical costs covered by a health plan. Premium and cost-sharing credits are for the silver plan.

Source: Commonwealth Fund Health Reform Resource Center: What’s in the Affordable Care Act? (PL 111-148 and 111-152), <http://www.commonwealthfund.org/Health-Reform/Health-Reform-Resource.aspx>.

Out-of-Pocket Spending and Premiums

Exhibit 2 presents the estimated out-of-pocket expense in each of the 20 plans for the adults at the 25th, 50th, and 95 percentiles of spending. Out-of-pocket expense generally decreases as actuarial value increases, but it does not fall uniformly. Notably, different plans with similar actuarial values can produce quite different out-of-pocket spending for a particular individual.

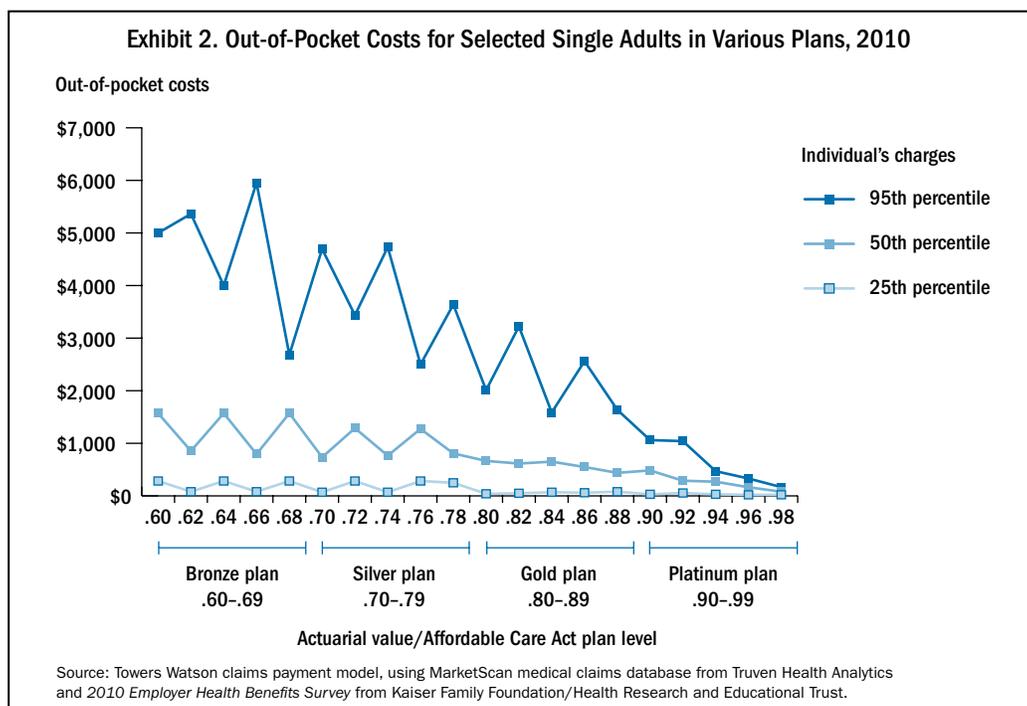
These variations are caused by different cost-sharing designs across plans. Some plans have a deductible plus coinsurance, others have fixed-dollar copayments, while still other plans have copayments on some services and coinsurance on others. These differing plan designs have varying effects on enrollees’ out-of-pocket spending, depending on the quantity and mix of health care services each person uses.

As an example, Exhibit 3 shows cost-sharing and out-of-pocket expense for individuals in the 74 percent and 76 percent actuarial value plans. Members at the 25th and 50th percentiles pay lower out-of-pocket costs under the 74 percent plan than in the 76 percent plan, whereas members at the 95th percentile have lower out-of-pocket costs in the 76 percent plan.

The 74 percent actuarial value plan imposes copayments on physician visits and prescription drugs,

but does not apply the deductible to these services. Thus, members with a few office visits and prescription drug fills can receive significant benefits before meeting the deductible of \$1,000—an arrangement that would benefit those with low health spending. The plan with a 76 percent actuarial value has a \$1,200 deductible that must be satisfied before it pays benefits on any services other than preventive care. This plan would be much less attractive to low spenders, but people with higher costs would benefit from the \$2,500 out-of-pocket limit that applies to all covered services.

In a similar fashion, some people would have higher out-of-pocket expense in a plan in a higher tier than in one from a lower tier. As shown in Exhibit 4, members with charges at the 25th and 50th percentiles would spend less in the 70 percent silver plan than in the 80 percent gold plan, even though the gold plan has a higher overall actuarial value. Again, this is because the silver plan has copayments on office visits and prescription drugs, and does not apply the deductible to these services. The 80 percent gold plan has a high deductible applying to all services, but a relatively low out-of-pocket maximum. This low out-of-pocket maximum would be attractive to the individual with total charges at the 95th percentile.



**Exhibit 3. Member Cost-Sharing and Out-of-Pocket Costs for Medical Services,
Adults at Four Levels of Health Care Utilization in Plans with Actuarial Values of 74 Percent and 76 Percent, 2010**

	74 percent actuarial value plan	76 percent actuarial value plan
Member cost-sharing		
Deductible (single)	\$1,000	\$1,200
Out-of-pocket maximum (single)	\$5,300	\$2,500
Primary care office visit	\$30 copayment	20% coinsurance
Outpatient surgery	20% coinsurance	20% coinsurance
Inpatient hospital stay	20% coinsurance	20% coinsurance
Prescription drugs (retail)	\$10/\$30/\$50*	20% coinsurance
Out-of-pocket costs		
5th percentile (charges of \$0)**	\$0	\$0
25th percentile (charges of \$283)	\$70	\$283
50th percentile (charges of \$1,571)	\$765	\$1,274
95th percentile (charges of \$18,997)	\$4,731	\$2,500

* Prescription drug copayments are for three tiers (generic, brand formulary, and brand nonformulary).

** 11% of members are nonusers.

Source: Towers Watson claims payment model, using MarketScan medical claims database from Truven Health Analytics and 2010 Employer Health Benefits Survey from Kaiser Family Foundation/Health Research and Educational Trust.

**Exhibit 4. Member Cost-Sharing and Out-of-Pocket Costs for Medical Services,
Adults at Four Levels of Health Care Utilization in Silver and Gold Plans, 2010**

	Silver plan (actuarial value 70%)	Gold plan (actuarial value 80%)
Member cost-sharing		
Deductible (single)	\$2,000	\$2,800
Out-of-pocket maximum (single)	\$5,200	\$2,800*
Primary care office visit	\$30 copayment	n/a
Outpatient surgery	20% coinsurance	n/a
Inpatient hospital stay	20% coinsurance	n/a
Prescription drugs (retail)	\$10/\$25/\$50**	n/a
Out-of-pocket costs		
5th percentile (charges of \$0)***	\$0	\$0
25th percentile (charges of \$283)	\$70	\$283
50th percentile (charges of \$1,571)	\$765	\$1,571
95th percentile (charges of \$18,997)	\$4,696	\$2,800

* We designed this plan with a deductible equal to the out-of-pocket maximum. Such plan designs are common in the individual market but are less common in the group market.

** Prescription drug copayments are for three tiers (generic, brand formulary, and brand nonformulary).

*** 11% of members are nonusers.

Source: Towers Watson claims payment model, using MarketScan medical claims database from Truven Health Analytics and 2010 Employer Health Benefits Survey from Kaiser Family Foundation/Health Research and Educational Trust.

This dynamic helps to explain the patterns seen in Exhibit 2. For plans with actuarial values less than 90 percent, the out-of-pocket spending patterns for high spenders tend to mirror the patterns for lower spenders. For example, the peaks for the member at the 95th percentile of spending correspond to the valleys for the member at the 50th percentile of spending. Plans with actuarial values of 90 percent or more do not exhibit this mirror imaging. These plans have low cost-sharing for all, and out-of-pocket spending is relatively low for all members. Consequently, a plan’s actuarial value by itself is an imperfect predictor of a particular person’s out-of-pocket expense.

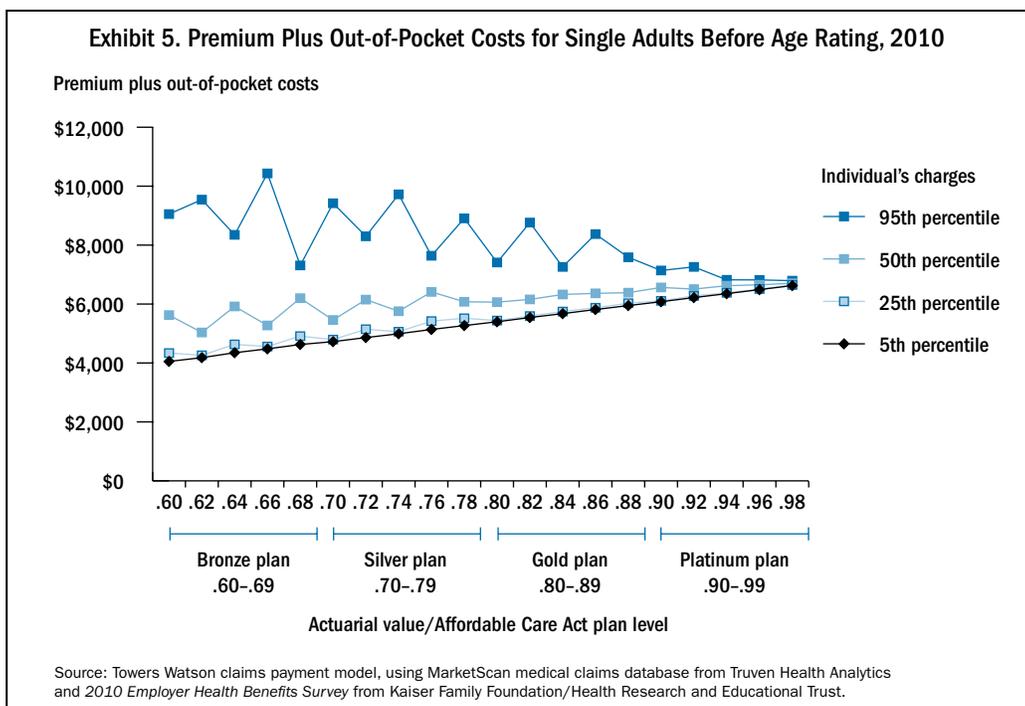
Exhibit 5 combines estimates of premiums and out-of-pocket expense for the four selected adults in each of the 20 plans. The premiums increase as actuarial values rise because we assume the same standard population and administrative expense for each plan. The premiums before age rating range from \$4,053 to \$6,626, and the lowest premium expense results from plans with low actuarial values (to view premiums alone, see the expense line for the 5th percentile adult who has no out-of-pocket expense). In contrast to Exhibit 2, which shows only out-of-pocket expense, Exhibit 5 indicates that many adults who were

relatively healthy during the year might have realized greater value in purchasing a plan with a lower actuarial value. Exhibit 5 demonstrates that even after adding the premium expense to the estimated out-of-pocket expense, two plans with similar actuarial values can produce very different spending.

Affordability of Coverage by Subsidy Level and Age

These estimates do not consider the Affordable Care Act subsidies for premiums and out-of-pocket costs. The Act permits limited age rating in exchange-based plans such that premiums for the most costly age group cannot exceed three times the premium for the least costly age group. Our analysis of the MarketScan medical claims database indicates that per capita charges for the 60-to-64 age group are 3.5 times the level of charges for those in the 20-to-24 age group, so the 3:1 limitation imposed by the health reform law will have the effect of lowering premiums for older enrollees and raising them for younger enrollees.

Exhibit 6 incorporates age and income with the out-of-pocket costs and premium expense estimated above to demonstrate affordability for young adults and near-elderly adults at each level of spending.



Premiums plus out-of-pocket spending rise steadily with income for 62-year-olds. A 62-year-old in the 95th spending percentile would pay 16 percent of income at 150 percent of FPL, 21 percent of income at 300 percent of FPL, and 27 percent of income at 400 percent of FPL. Nonusers and people in the 25th and 50th percentile of charges would pay less, but the same pattern holds. By contrast, the percent of income paid by 22-year-olds does not consistently increase with income because their premiums are low even before subsidies.

Lower-income 62-year-olds are subsidized to a greater extent than lower-income 22-year-olds because 62-year-olds have higher premiums than younger people. The unsubsidized premium of \$2,483 for a 22-year-old is less than the maximum allowed premium of \$3,175 at 300 percent of FPL, or about 9 percent of income. Consequently, a 22-year-old with income at 300 percent of FPL pays the same premium as a 22-year-old with income at 400 percent of FPL—but of course this premium represents a greater share of income for a consumer with lower income.

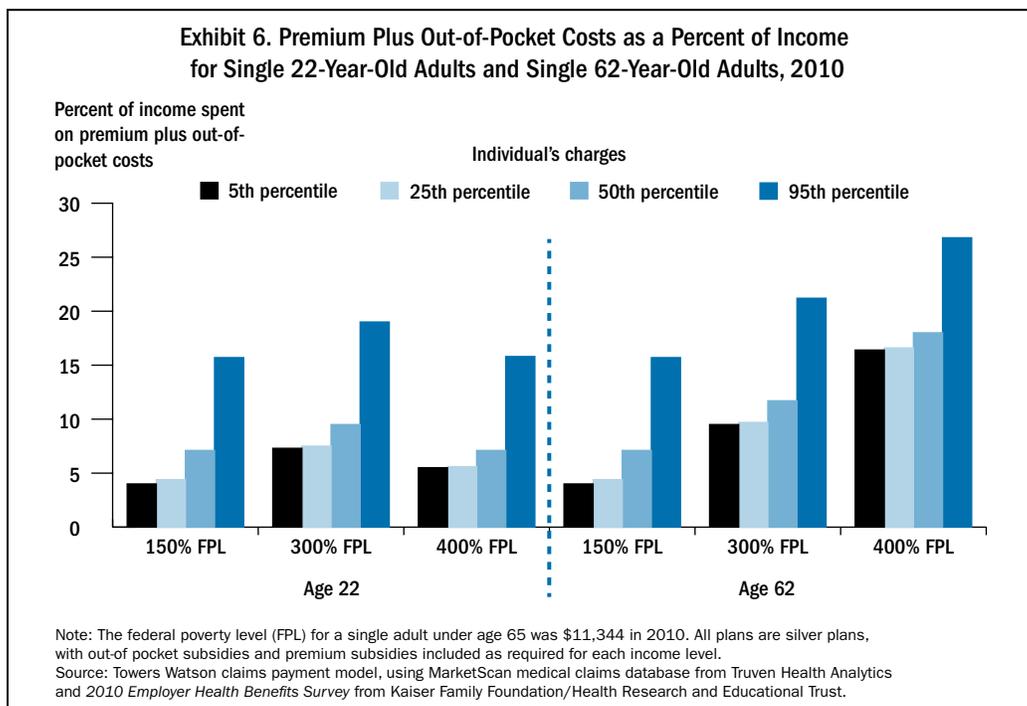
The insurance premium subsidies can be substantial. The premium tax credit is \$4,193 at 150 percent of FPL and \$1,687 at 300 percent of FPL. These

are direct dollar-for-dollar reductions in the premium cost. Nevertheless, the remaining premium and out-of-pocket expense can still be a substantial portion of income for lower-income individuals. A 62-year-old in the 95th percentile of health spending would pay 16 percent to 27 percent of their income for minimum eligible coverage, or \$2,700 to \$12,150, depending on income. A 22-year-old in the 95th percentile would pay 16 percent to 19 percent of their income, or \$2,700 to \$7,200.

DISCUSSION

The Affordable Care Act’s market reforms and establishment of health insurance exchanges will greatly expand consumer protections and make it easier to compare health plans. All exchange plans will cover “essential” health care services. Actuarial values will be used to classify plans into cost-sharing tiers. All of these changes will facilitate consumer choice of high-value plans, but other complexities and policy considerations will remain.

First, competing plans with identical actuarial values might produce very different out-of-pocket spending for different people, depending on the plans’ specific provisions. For example, plans with a comprehensive deductible will pay for preventive services



only—not other types of medical care and prescription drugs—until the deductible is met. This might benefit someone with charges at the 95th percentile if the out-of-pocket maximum were sufficiently low, since the plan would pay a high proportion of their health care costs. But such a plan might be less attractive to someone with lower use of services because most or all of their services would fall under the deductible, so the plan would pay little or no benefits.

The Affordable Care Act allows flexibility in plan design while defining essential benefits and classifying plans into the four actuarial value tiers to facilitate comparison shopping. States could impose additional constraints if they wish to further structure choice. For instance, states might choose to narrow the range of allowed deductibles or out-of-pocket maximums, require plans to use copayments instead of coinsurance, or specify a benchmark plan design.⁴

States have more limited options to simplify comparison of the individual and small-group health plans that can still be sold outside of the exchanges. States could require all individual and small-group plans to be sold through the exchange, but such a step would face significant political opposition in many states. States might instead level the playing field by applying similar regulations to the exchange and non-exchange markets.⁵

Second, even with new age rating restrictions and premium subsidies, older people with low incomes are most likely to face high out-of-pocket expense. Their premiums will still be up to three times those of young adults and their health care utilization is relatively high. Older Americans at the 95th spending percentile with an income at 300 percent of poverty can spend more than 20 percent of their income on premium and out-of-pocket expense.

Third, the broad range of consumer choice afforded in health insurance exchanges will heighten the need for risk adjustment. Less healthy people will be attracted to plans with low cost-sharing, thereby raising the claim expenses for these plans. The Affordable Care Act requires risk adjustment to subsidize insurers with high-risk populations. Regardless of the risk adjustment method adopted in each state, the

success of risk adjustment will depend on obtaining the most accurate data possible on enrollees' risk profiles.⁶

Consumers anticipate some health care needs when choosing a plan, but many health care expenses are not predictable and some consumers are drawn to low cost-sharing plans because they prefer to minimize risk. Even when provided with information about the plans and their premiums, it can be hard for people to choose a plan that best meets their expected medical needs. Faced with this uncertainty, actuarial value presents a useful estimate of the expected percentage of health care expense that will be paid by a plan for people in a standard population.

Although this analysis focuses on out-of-pocket expense, premiums, and affordability, it should be noted that there are other important considerations in judging the value of a plan. Health plans also differ in network access and quality of care. Exchanges are responsible for providing information to help consumers evaluate these dimensions, including the ability for consumers to search for particular providers in each plan's network.

Many employers provide their employees with cost calculators to estimate how plans compare for prototype families with differing costs and utilization. Medicare has invested in a telephone hotline and a Web site with side-by-side comparisons of plan provisions, premiums, expected out-of-pocket costs, and overall ratings. Medicare also invested heavily in call centers to ensure that well-informed customer service representatives were available to help beneficiaries select a private drug plan when that program was implemented in 2005–06. In a similar fashion, the Affordable Care Act requires exchanges to provide detailed plan information beyond actuarial values. Exchanges will present plan provisions in a standard format, assign price and quality rankings, and offer online tools to estimate premium subsidies and out-of-pocket expense. Exchanges will also fund “navigator programs” to help people understand and access their health insurance options through the exchange.⁷ As the exchanges develop these resources, they can draw on the experience of employers and the Medicare program to ensure that people purchasing through the exchanges have all the information they need to make an informed choice.

NOTES

- ¹ Congressional Budget Office, “Health Insurance Exchanges—March 2012 Baseline” (Washington, D.C.: CBO), available at http://cbo.gov/sites/default/files/cbo-files/attachments/43057_HealthInsuranceExchanges.pdf.
- ² Center for Consumer Information and Insurance Oversight, “Actuarial Value and Cost-Sharing Reductions Bulletin” (Washington, D.C.: CCIIO, 2012), available at <http://cciio.cms.gov/resources/files/Files2/02242012/Av-csr-bulletin.pdf>. The exchanges will have the option to use a national standard population or a state-specific standard population. Each state also will be assigned to one of three pricing tiers for the purposes of calculating actuarial value.
- ³ Affordable Care Act, Sections 1311(c)(1)(B) and 1311(c)(3).
- ⁴ T. S. Jost, *Health Insurance Exchanges and the Affordable Care Act: Key Policy Issues* (New York: The Commonwealth Fund, July 2010).
- ⁵ T. S. Jost, *Health Insurance Exchanges and the Affordable Care Act: Eight Difficult Issues* (New York: The Commonwealth Fund, Sept. 2010).
- ⁶ Ibid.
- ⁷ “Navigators” will be entities that provide information on Exchange health plans to consumers and help them enroll in the plan of their choice. Navigators might include insurance brokers, trade associations, nonprofit organizations, or other entities having relationships with consumers and employers. A detailed description of the Navigator function is available at <http://healthreformgps.org/resources/state-health-insurance-exchange-navigators/>.

DATA AND METHODS

In this analysis we use current employer-sponsored plans to demonstrate the variety of plan designs, out-of-pocket expenditures, and premiums that might have resulted if the state health insurance exchanges had existed in 2010. Using a standard population, we estimate actuarial values for these plans and classify the plans into the four tiers defined by the Affordable Care Act. In classifying actuarial values into the four tiers, we “round down”—that is, a plan with a value of 76 percent would be classified as a silver plan because it falls short of the 80 percent standard for a gold plan. Finally, we examine the experience of four adults from across the spending distribution to demonstrate their potential out-of-pocket expense, premiums, and affordability in a variety of plans that might be purchased through an exchange.

We used two data sources to estimate how different plan designs affect premiums and out-of-pocket expenses: 1) the 2010 Employer Health Benefits Survey, conducted by the Kaiser Family Foundation and the Health Research and Educational Trust (KFF/HRET), which provides detailed cost-sharing data for plans offered by a stratified random sample of 1,910 employers with three or more employees; and 2) the 2008 Thomson Reuters MarketScan claims database, which provides detailed medical and drug claims for approximately 15 million enrollees in active employee plans sponsored by large employers. (MarketScan is the source for our standard covered population.)

We used a claims-payment simulation model to estimate actuarial values and out-of-pocket costs for each plan in the KFF/KRET survey. In accordance with the Affordable Care Act, we used a standard population, with allowed charges that remained the same for all plans. The model pays claims for the standard MarketScan population based on each plan’s cost-sharing provisions. We calibrated the model to 2010 charge levels to match the plan survey year. Next, we selected 20 plans with actuarial values ranging from 60 percent to 98 percent in 2 percent increments, to represent a variety of plan designs that might be offered in the exchanges. These plans were chosen to meet the Affordable Care Act criteria for maximum out-of-pocket limits.

The actuarial value is an overall plan-level measure. Actuarial values do not indicate how much a specific person would pay out-of-pocket. To show the diversity of out-of-pocket costs among plan members, we selected four adults with differing levels of health care utilization. These people have total allowed charges falling at the 5th, 25th, 50th, and 95th percentiles of charges in the MarketScan adult population. We used our simulation model to estimate out-of-pocket spending for each person in each of the 20 selected plans. We did not adjust charges to reflect additional utilization that might occur in plans with lower levels of cost-sharing.

Next, we estimated premiums for single coverage in each plan by first “paying claims” and then estimating premiums such that administrative expense would comprise 18 percent of the total. The Affordable Care Act requires plans to have medical loss ratios of at least 80 percent in the individual and small-group markets. We assumed a medical loss ratio of 82 percent for all plans and used this assumption in estimating premiums.

The Affordable Care Act aims to provide affordable coverage to people at every income level. The law provides graduated premium subsidies for individuals with incomes below 400 percent of the federal poverty level, and it sets minimum required actuarial values and maximum out-of-pocket limits for these people. Taking these provisions into account, we assess the affordability of several plans by estimating premiums plus out-of-pocket expense as a percent of income for people at selected income levels.

ABOUT THE AUTHORS

Ryan Lore, M.P.P., is a health care researcher at the consulting firm Towers Watson. His main interests include modeling of health-plan expense, analysis of medical claims and benefit surveys, and insurance reform initiatives. He has collaborated with NORC at the University of Chicago on several projects regarding actuarial value and member out-of-pocket expense in employer-based and individual health plans. He has also worked with the RAND Corporation on a multi-year project comparing out-of-pocket spending and the use of drugs and medical services in consumer-directed health plans (CDHPs) and non-CDHPs. Mr. Lore joined Towers Watson's predecessor Watson Wyatt in 1997. He holds a Master of Public Policy degree from Georgetown University, as well as Bachelor of Science in Economics and Bachelor of Arts in Psychology degrees from the University of Pennsylvania.

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Roland McDevitt, Ph.D., heads the health care research team at Towers Watson and has nearly three decades of experience in health care research. He has developed medical claims databases and microsimulation models to estimate actuarial value and member out-of-pocket expense for health plans in both the individual and group markets. He has partnered with the RAND Corporation on a five-year project to study consumer-directed health plan outcomes related to plan spending, member out-of-pocket expense, and quality of care. He represented Watson Wyatt in a partnership with the National Business Coalition on Health to gather health plan performance data and evaluate the cost, quality, and access dimensions of plan offerings by commercial carriers and HMOs. Dr. McDevitt holds a Ph.D. in political science and public policy analysis from the University of California, Santa Barbara.

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