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What the Actuarial Values in the Affordable Care Act Mean

The Patient Protection and Affordable Care Act (ACA) establishes various tiers of health insurance coverage. These tiers are used for three primary purposes:

- To set the minimum amount of coverage many people must have to satisfy the requirement that they be insured or pay a federal tax penalty beginning in 2014.
- To establish standardized levels of insurance individuals and small businesses can buy in health insurance purchasing Exchanges or in the outside market.
- And, as benchmarks for premium and cost-sharing subsidies provided to lower and middle income people buying their own insurance in Exchanges.

The ACA identifies a range of services that must be included in the benefits package that all individual and small business plans must use – and requires preventive services to be covered with no patient cost-sharing – with further details to be developed by the Secretary of Health and Human Services (HHS). These requirements apply to all tiers of health insurance coverage, meaning that differences in the levels of coverage will reflect variation in cost-sharing, not differences in the underlying benefits.

However, the levels of coverage in the ACA are not defined using specific deductibles, copays, and coinsurance. Rather, they are specified using the concept of an "actuarial value" (AV). For example, a plan with an actuarial value of 70% (referred to as a "silver" plan in the ACA) means that for a standard population, the plan will pay 70% of their health care expenses, while the enrollees themselves will pay 30% through some combination of deductibles, copays, and coinsurance. The higher the actuarial value, the less patient cost-sharing the plan will have on average. The percentage a plan pays for any given enrollee will generally be different from the actuarial value, depending upon the health care services used and the total cost of those services. And, the details of the patient cost-sharing will likely vary from plan to plan.

The levels of coverage provided for in the ACA are central to the coverage people will get and how they will ultimately perceive the effects of the health reform law. But, actuarial values are not an inherently intuitive idea for most people, so the Kaiser Family Foundation initiated a study to estimate the deductibles and coinsurance that would meet the thresholds defined in the ACA. Because there is inherent uncertainty in actuarial analysis – driven by different assumptions and data – the study commissioned estimates from three well-established actuarial and benefits consulting firms: Actuarial Research Corporation, Aon Hewitt, and Towers Watson.

This brief explains the coverage tiers established in the ACA, presents the actuarial estimates from the three firms, and discusses the potential policy implications.

Coverage Tiers in the ACA

The ACA specifies that beginning in 2014 insurance newly sold to individuals and small businesses in an Exchange or otherwise must be at one of four actuarial value levels: 60% (a bronze plan), 70% (a silver plan), 80% (a gold plan), and 90% (a platinum plan).¹ These tiers do not apply to coverage already in existence meeting certain conditions (so-called "grandfathered" plans). The ACA also requires that plans cap the maximum out-of-pocket costs for enrollees, based on the out-of-pocket limits in high-deductible plans that are eligible to be paired with a Health Savings Account.² The current limits are \$5,950 for an individual and \$11,900 for a family, and will be adjusted over time after 2014 based on increases in premiums.

Most people will be required to have insurance that is at least at the bronze level (a 60% actuarial value) or pay a federal tax penalty. People who buy coverage on their own through an Exchange and have family income up to four times the poverty level (\$89,400 for a family of four and \$43,560 for a single individual in 2011) may be eligible for premium and cost-sharing subsidies. The premium subsidies are based on family income and the premium (adjusted for age) of the second lowest cost silver plan (70% actuarial value) in an Exchange.³ In addition, low and modest income people buying insurance in Exchanges may be eligible for coverage with a higher actuarial value and lower out-of-pocket maximum.

Table 1 shows the range of actuarial values and maximum patient out-of-pocket costs specified in the ACA and who they apply to.

Table 1: Actuarial Value and Plan Requirements in the ACA

	Actuarial Value	Out-of-Pocket Maximum	Who it Applies to
A	60%	HSA Level	Bronze plan, available to all individuals and small businesses
B	70%	HSA Level	Silver plan, available to all individuals and small businesses
C	70%	2/3 of HSA Level	Silver plan for people with income 300-400% of poverty
D	70%	1/2 of HSA Level	Silver plan for people with income 250-300% of poverty
E	73%	1/2 of HSA Level	Plan with cost-sharing subsidies for people with income 200-250% of poverty
F	80%	HSA Level	Gold plan available to all individuals and small businesses
G	87%	1/3 of HSA Level	Plan with cost-sharing subsidies for people with income 150-200% of poverty
H	90%	HSA Level	Platinum plan available to all individuals and small businesses
I	94%	1/3 of HSA Level	Plan with cost-sharing subsidies for people with income 100-150% of poverty

Note: Bolded rows reflect coverage that is available to all participants in the individual or small group market. Other levels of coverage are available only to individuals eligible for subsidies in Exchanges based on family income. "HSA Level" refers to the maximum out-of-pocket costs in a high deductible plan paired with a Health Savings Account. The current limits are \$5,950 for an individual and \$11,900 for a family and will be adjusted over time.

Because the coverage tiers are defined based on actuarial value – which measures the generosity of a plan for a standard population – the cost-sharing structure could vary from one plan to another. For example, one plan may have a higher deductible than another, compensating by having a lower coinsurance percentage once the deductible is met in order to achieve the same actuarial value. Or, a

¹ The ACA permits insurers to sell a lower actuarial value Catastrophic Plan in the non-group market to individuals who: (1) are under the age of 30; or (2) would otherwise be exempt from the requirement under the ACA to have coverage because available coverage is unaffordable or enrollment in available coverage would be a hardship.

² The cost-sharing limit often is referred to as a out-of-pocket limit, and refers to the maximum amount that enrollees must pay towards deductibles, coinsurance and copayments (or other required point-of-service charges). The plan pays for all covered expenses beyond that point. The general rule is that catastrophic, bronze, silver, gold and platinum plans may not have out-of-pocket limits that exceed the limits for Health Savings Account qualified health plans. The ACA reduces the maximum out-of-pocket limits for enrollees in families with incomes below 400 percent of poverty. The provision interacts with the general cost-sharing reductions, which is taken into account in the results presented in Table 1.

³ A subsidy calculator from the Kaiser Family Foundation illustrates the premium and cost sharing subsidies for people in different circumstances. It is available at <http://healthreform.kff.org/subsidycalculator.aspx>.

plan may cover some physician visits before a person meets the deductible, compensating by having a higher deductible or coinsurance percentage. While enrollees in the aggregate would be expected to pay the same out-of-pocket costs in two plans that have the same actuarial value, any given enrollee could have different costs in the two plans depending on how much and what type of health services he or she uses.

Actuarial Analysis Results

To provide illustrations of what levels of cost-sharing would be required to meet the various actuarial value thresholds defined in the ACA, the Kaiser Family Foundation commissioned three actuarial and benefits consulting firms to provide independent estimates. Using three different firms illustrates the range of possible benefit designs consumers might see as insurers develop their own packages to meet the specified actuarial values beginning in 2014, and also provides insight into the uncertainty in forecasting how insurers might react to the ACA's rules.⁴ The estimates are for 2014, the first full year of implementation of the coverage provisions of the ACA.

HHS has not yet issued guidance on how actuarial values will be assessed under the ACA. However, in collaboration with Kaiser, the firms agreed to certain common assumptions in constructing their estimates, including:

- All estimates are based on the average 2009 premium for a preferred provider organization-type plan under employer-sponsored coverage, using an average population of people under age 65 covered by an employer plan. Each firm began with the assumption that a single adult premium is \$4,922 (from the Kaiser/HRET Employer Health Benefits Survey⁵), and then benchmarked its database of health care expenditures to match to the level of overall health care use implied by that premium level. In doing so, they each assumed that 10% of the premium is allocated to administrative costs and profits. The firms also assumed that a typical employer-sponsored PPO plan has an actuarial value of 82%.
- Premiums are expected to grow an average of 7% annually from 2009 to 2014, based on the judgment of the consultants. To illustrate how slower growth in premiums would affect the estimates, the firms also estimated a benefit design for a silver plan (70% actuarial value) using a lower level of premium inflation (23% over the period, or an average annual increase of 4.3%). The lower premium growth figure is based on Actuarial Research Corporation estimates of projected growth in per capita private health insurance premiums that are based on the aggregate National Health Expenditure Account projections produced by the Office of the Actuary in the Centers for Medicare and Medicaid Services.
- All firms assumed coverage of a broad range of services typical of employer-sponsored plans, and coverage of preventive services with no cost-sharing (as required by the ACA). The actual benefits insurers will be required to cover will depend on rules issued by HHS, which the law states must be "equal to the scope of benefits provided under a typical employer plan." If benefits are more comprehensive than what is assumed here, the overall benefit costs per enrollee would be higher, potentially increasing the dollar amounts of cost-sharing required to match a particular actuarial value.

⁴ As discussed later, rules governing how actuarial calculations are done could affect the consistency of results across insurers.

⁵ See <http://ehbs.kff.org/2009.html>.

- For ease of comparison, all firms created benefit designs that included an up-front deductible that applies to all services except preventive care, and a uniform coinsurance on all services once the deductible is met, up to an out-of-pocket maximum. In reality, insurers could structure their coverage in a variety of more complicated ways (e.g., providing coverage of some physician office visits before the deductible is met, applying differential copays or coinsurance across different services, tiered copayments for prescription drugs, etc.).

Using these common assumptions, the three firms developed plan designs satisfying select actuarial value tiers specified in the ACA and described in Table 2. The firms used different claims databases, and developed their own estimates of how use of services might vary based on different levels of patient cost-sharing and the expected cost of prevention coverage required by the health reform law. They also determined independently how to apportion patient cost-sharing between the deductible and coinsurance.

Table 2 presents the plan designs developed by the three firms. The plan designs show examples of the deductibles and coinsurance levels that would be required to meet the ACA standards, as defined by actuarial values and maximum patient out-of-pocket thresholds. The out-of-pocket maximum and deductible amounts shown in the table are per person; for a family policy, these amounts would be double for the entire family.

Table 2: Estimates of Plan Designs Meeting Selected ACA Actuarial Value Thresholds, 2014

			Actuarial Research Corporation		Aon Hewitt		Towers Watson	
	Actuarial Value	Out-of-Pocket Maximum	Deductible	Coinsurance	Deductible	Coinsurance	Deductible	Coinsurance
A	60%	\$6,350	\$6,350*	0%	\$4,350	20%	\$2,750	30%
B	70%	\$6,350	\$4,200	20%	\$2,050	20%	\$1,850	20%
C	70%	\$4,200	\$4,200*	0%	\$2,650	20%	\$1,550	30%
D	70%	\$3,200	\$3,200*	0%	\$3,200*	0%	\$2,050	30%
E	73%	\$3,200	\$3,200*	0%	\$3,200	0%	\$1,750	25%
G	87%	\$2,100	\$1,050	20%	\$250	20%	\$150	20%
I	94%	\$2,100	\$60	10%	\$200	5%	\$0	8%

Note: Amounts shown for the out-of-pocket maximum and deductibles are per person; figures for families would be double these amounts. Where an asterisk appears, the firm was unable to construct a plan design within the constraints of the actuarial value and out-of-pocket maximum. The deductible shown in these cases is equal to the out-of-pocket maximum, which is the highest it can be. The out-of-pocket maximum amounts are based on those for high-deductible plans that qualify to be paired with a Health Savings Account, inflated forward to 2014.

Apart from the specific details of any of the plan designs, one notable conclusion from the analysis is the substantial variation in the estimates. For example, the estimated deductible for a silver plan (plan B in Table 2) ranges from \$1,850 to \$4,200 for single coverage, with 20% coinsurance required above the deductible in all cases. The variation – which exists in spite of agreement upfront among the firms on a common set of major assumptions – is primarily due to differences in the assumed distribution of health expenses across the population, as well as how patients are believed to respond to varying levels of cost-sharing in their use of services.⁶ The actual variation in the market starting in 2014 will be affected by rules issued by HHS governing how actuarial value is to be assessed, and by how those rules are implemented in practice by state-established Exchanges. The more prescriptive the valuation

⁶ A key factor in the different results is the underlying data used. Actuarial Research Corporation's model is based on the federal government's Medical Expenditure Panel Survey Household Component, calibrated to be consistent with the National Health Expenditure Accounts prepared by the Office of the Actuary in the Centers for Medicare and Medicaid Services. Aon Hewitt's model is based on Ingenix's health care claims database, representing millions of insured lives from large self-funded employers, and Towers Watson used the Thompson Reuters MarketScan claims database.

process is, the narrower the range of plan designs is likely to be. Deductible and coinsurance levels are likely to vary across geographic areas, based in part on differences in the rates paid by health care providers and the use of services by patients. Market dynamics could also affect variation, with greater competition likely resulting in more similar insurance products.

The bronze plan (plan A in Table 2) is particularly central to the structure of the ACA since it is the minimum coverage people buying insurance in the individual and small group markets would be required to have to meet the law's requirement that most people be insured. While the results from the three firms vary significantly, they all suggest that a bronze plan would require that patients meet a substantial upfront deductible, ranging from \$2,750 for single coverage with 30% coinsurance once the deductible is met to \$6,350 with no coinsurance. Family deductibles would be twice this amount (ranging from \$5,500 to \$12,700). These deductibles are considerably higher than the minimum for a high-deductible plan that qualifies for a Health Savings Account (\$1,200 for single coverage in 2011, which would rise to \$1,300 in 2014 based on current projections of inflation). In fact, all the firms estimate that deductibles in bronze and silver plans would be high enough to qualify as high-deductible plans and could be paired with a Health Savings Account.⁷

The bronze plans developed by Aon Hewitt and Towers Watson include deductibles that are roughly comparable to estimates of the average deductible in the non-group market today. A 2010 Kaiser Family Foundation survey⁸ of people who buy non-group insurance found an average deductible of \$2,498 for single coverage. A 2009 survey⁹ of insurers by America's Health Insurance Plans had similar results. Deductibles under the status quo are expected to increase over time. Also, the health reform law will significantly improve coverage in the market in a variety of ways, including: a prohibition on denial of coverage or rate surcharges based on health status, access to preventive services with no patient cost-sharing, and a required set of covered services.

Coverage provided to the lowest-income enrollees in Exchanges would require considerably less patient cost-sharing than for the standard bronze or silver plans. For those with family income up to 150% of the poverty level (now \$33,525 for a family of four and \$16,335 for an individual), the estimated per person deductible ranges from \$0 with 8% coinsurance to \$200 with 5% coinsurance (plan I). Out-of-pocket costs under the law would be capped at \$2,100 for these enrollees in 2014. (Note that people with incomes up to 133% of the poverty level would be covered under the Medicaid program.) However, cost-sharing could be substantial for others with modest incomes eligible to receive subsidies. For example, for those with family income greater than 200% and up to 250% of the poverty level (\$44,700 to \$55,875 for a family of four), estimated per person deductibles range from \$1,750 to \$3,200, and family deductibles would be twice those amounts (plan E).

In some cases, the firms were unable to produce plan designs meeting the requirements of the health reform law for the actuarial value of the coverage and the maximum out-of-pocket cost for patients. That is, setting the deductible at the out-of-pocket limit – which is the maximum it can be – yielded an actuarial value higher than the level in the law. For plans that provide for reduced cost-sharing based on family income (i.e., plans E, G, and I), HHS has the authority to adjust the out-of-pocket limits to ensure compatibility with the actuarial value thresholds.

Estimating deductible and coinsurance levels for 2014 requires anticipating how much health care costs will rise between now and then. All of the estimates presented above assume costs will rise an average of 7% per year between 2009 and 2014. If costs rise faster than that, the required deductibles would

⁷ Based on the estimates, bronze and silver level plans would support HSA-qualified high-deductible plans. It might be possible, however, to design a plan at the bronze level with higher cost-sharing and a deductible lower than the HSA-qualified threshold.

⁸ See <http://www.kff.org/kaiserpolls/8077.cfm>.

⁹ See <http://www.ahipresearch.org/pdfs/2009IndividualMarketSurveyFinalReport.pdf>.

need to be higher to meet a particular actuarial value, and if costs rise slower than expected, deductibles would be lower. To illustrate the sensitivity of the results to alternative cost trends, the firms developed plan designs for a silver plan (plan B) using an alternative assumption of 4.3% annual cost growth. The resulting deductibles were 15-23% lower (not shown on the tables).

Conclusion

A primary aim of this analysis was to help people understand the levels of coverage specified in the health reform law by providing a tangible illustration of how actuarial values translate into more intuitive deductibles and coinsurance. This allows people to come to their own judgments about key questions regarding the appropriateness of the coverage provided for in the ACA, such as:

- Does the minimum level of coverage required (a bronze plan) strike the right balance between providing a sufficient level of protection for people and establishing a floor for coverage that is affordable and not too disruptive relative to the insurance people are buying today?
- Will the cost-sharing be affordable for low and moderate income people who qualify for subsidies?
- Will people perceive themselves as better off under reform than the status quo?

The analysis also points to the potential for substantial variation in plan designs meeting the actuarial value thresholds in the law, suggesting that the terms of coverage could vary significantly across insurers. The extent to which this is the case will depend on the degree of competition in a market, but also importantly on how much standardization is required by HHS and states in evaluating the actuarial value of insurance products. Significant variation in plan designs could make it more difficult for consumers to compare plans and dampen how much competition over price emerges in the insurance market. Exchanges could play an important role in helping consumers understand their choices by, for example, providing online tools to estimate their out-of-pocket costs.

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