

Creating A Usable Measure Of Actuarial Value

SUMMARY

The concept of actuarial value plays a large role in the implementation of the Patient Protection and Affordable Care Act. It is a key piece of information that consumers will use to navigate their coverage choices in the individual and small group markets. It is also used to establish minimum thresholds for coverage and to establish premium tax credit levels. In October 2011, Consumers Union convened a panel of experts to discuss several key issues: (1) how actuarial value will be employed under the health reform law, (2) the definitional and measurement issues associated with its use, and (3) how to craft a measure that is usable by consumers. This brief distills this discussion and identifies the key challenges and issues that regulators must address if actuarial value is to be used effectively under the PPACA.

Actuarial value is a concept long used by health insurance plans and actuaries but is generally unfamiliar to consumers, regulators and policymakers. However, the new health care law – the Patient Protection and Affordable Care Act (PPACA) – relies on the concept of actuarial value for several key provisions.

In October 2011, Consumers Union convened a public forum in Washington, DC to discuss actuarial value. A panel of experts discussed how the measure is employed in the new health reform law, the definitional and measurement issues associated with its use, and how to craft a measure that is usable by consumers. A complete list of presenters and their topics is included at the end of this document.

This brief distills this discussion and identifies the key challenges and issues that regulators must address if actuarial value is to be used effectively under the PPACA. This discussion was intended to aid regulators and policymakers as they draft rules that employ the concept of actuarial value as part of the implementation of the PPACA.

What is Actuarial Value?

Actuarial value is an estimate of the overall financial protection provided by a health plan. More precisely, it is the average share of medical spending paid by

the plan for a defined set of covered services across a standard population of both healthy and sick consumers. The calculation looks like this:

$$\text{ACTUARIAL VALUE} = \frac{\text{Medical Spending Paid By Health Plan, for a defined set of services, across a standard population}}{\text{All Medical Spending, for a defined set of services, across a standard population}}$$

For example, the typical employer PPO-style health plan has an actuarial value of approximately 83%.¹ That means, on average, the plan pays for 83% of medical spending for covered services, and beneficiaries would pay the remaining 17% out-of-pocket in the form of deductibles, coinsurance, and copayments.

The actuarial value calculation takes into account various plan features, such as: The range of medical services covered by the plan, and Cost-sharing elements like deductibles, coinsurance, copayments, and out-of-pocket limits

A health insurance plan pays different percentages for different people, depending on the level and types of services they use during the year – typically more for those who are sick and less for those who are healthy. Actuarial value provides a summary view of what percentage the plan would pay on average across a group of people.

Note that a wide variety of plan designs could achieve a given actuarial value target. For example, a plan with a very high deductible but a low out-of-pocket maximum could pay about the same as a plan with a low deductible but a higher out-of-pocket maximum, across a standard population. This is because the two plans are paying the same share of covered charges, but in different ways (Exhibit 1).

EXHIBIT 1: ALTERNATE PLAN DESIGNS BOTH WITH 70% ACTUARIAL VALUE		
	Plan 1	Plan 2
Actuarial Value	70%	70%
Deductible	\$1,500	\$1,900
Max Out-of-Pocket	\$5,950	\$2,975

Note: Both plans modeled with coinsurance of 20 percent and full coverage for preventive services.

*Source: Adapted from **What Will An "Actuarial Value" Standard Mean for Consumers?** Consumers Union, January 2011.*

What Actuarial Value is Not

Because it is an average, actuarial value is not an indicator of what the plan will pay for any individual enrollee. Furthermore, actuarial values do not incorporate other health plan information that consumers care about, such as the size and quality of the provider network, level of customer support or premium amounts.


Actuarial value is not a precise measure, it is more of an estimate. And because it is calculated on an average basis, it does not predict out-of-pocket costs for any individual.
- Cori Uccello

Hence, actuarial value doesn't provide a complete picture of a health plan, although it does summarize an important dimension – the amount of coverage provided. As such, it is particularly useful as a measure for comparing different plans or comparing plans to a benchmark.

How Does the PPACA Use Actuarial Value?

The new health reform law employs actuarial value measures in several ways.

In 2014 actuarial value will be used to categorize health plans sold in the individual and small group markets into coverage levels. The four levels – Bronze, Silver, Gold and Platinum – must have actuarial values of 60%, 70%, 80% and 90% respectively (Exhibit 2). These actuarial value levels will be tied to a state-specific set of covered services, called the “essential health benefits.”

EXHIBIT 2: COVERAGE LEVELS IN THE PPACA		
Metal Tier	Actuarial Value Target	
Platinum	90%	More Coverage
Gold	80%	
Silver	70%	
Bronze	60%	Less Coverage

In addition to categorizing health plans, actuarial value will be used to determine the amount of federal tax credits that middle-to-lower income families can use to purchase individual and family plans in the Exchange², starting in 2014. The tax credit amount will be tied to the cost of a Silver plan (70% actuarial value).³ Cost-sharing reductions—which provide additional financial protection for lower-income families—also are defined in terms of actuarial value. In other words, lower-income families may have their final premium cost (post tax credit) tied to the 70% actuarial value plans, but they also will benefit from more favorable cost-sharing than would normally be associated with the 70% benchmark standard (Exhibit 3).⁴

EXHIBIT 3: LOWER INCOME FAMILIES HAVE ACCESS TO RICHER PLANS THROUGH COST-SHARING REDUCTIONS

Family Income (as a percent of Federal Poverty Level or FPL)	Actuarial Value Target
100-150% FPL	94%
150-200% FPL	87%
200-250% FPL:	73%

People offered employer-based insurance are also affected by actuarial value. Those with an offer of employer coverage will not normally be eligible for premium tax credits or cost-sharing reductions. However, if their employer-based insurance has an actuarial value below 60%, they may be eligible for premium tax credit subsidies for insurance purchased on the Exchange, because the employer-based coverage would not be considered to offer “minimum value.” Beginning in 2014 employers must disclose whether the health plans they offer are above or below this 60% actuarial value threshold.

Under the PPACA, the actuarial value method of measuring coverage levels is central to the idea of how much coverage people will get and how they will pay for it.

Issues for Policymakers and Regulators

Policymakers and regulators must address several issues if they are going to effectively incorporate actuarial value into the rules implementing the PPACA. These can be categorized as definitional and measurement issues.

The definitional issues address precisely how actuarial value will be calculated and whether the same definition will be used across the individual, small group and large group markets.

The measurement issues address the potential disparities that can arise from different modeling approaches.

DEFINITION OF STANDARD POPULATION

As already noted, actuarial value measures are typically calculated over a “standard population” so that the presence of very sick or very healthy enrollees in a particular plan doesn’t skew the calculation. The PPACA reinforces this with a statutory requirement that coverage levels be determined based on a standard population. However, the law doesn’t further define what this standard population would look like, nor does the law suggest what data should be used to determine the standard population. Likely solutions include a population that mimics the average health risk of the individual and/or small group health markets, or the privately insured market more broadly.

Another issue is how precise this definition should be. For example, regulators must decide whether to require the use of a fixed standardized data set when calculating actuarial value, or whether to allow each plan to use its own data. Cori Uccello, of the American Academy of Actuaries, indicated that under the latter approach, the same plan design could yield different actuarial value estimates, driven by differences in the population as well as differences in each plan’s provider payment rates and utilization patterns. Using the plans’ own data could yield actuarial value estimates that more closely reflect the share of spending paid by the plan, providing a more accurate picture of what the plan offers, but would not provide measures that are comparable across plans.⁵

DEFINITION OF MEDICAL SPENDING

Actuarial value estimates must be made over a defined set of medical spending. For actuarial value calculations made for plans in the individual and small group market, the medical spending that is used to calculate actuarial value is defined by the PPACA to be the “essential benefits package.” The details of this package are not yet known but it is required to include 10 broad categories of services and to be roughly comparable to the coverage offered by the typical employer.⁶ The U.S. Department of Health and Human Services (HHS) has issued guidance indicating each state may develop state-specific guidelines, subject to certain requirements.⁷ The key issue will be how precisely or loosely the package is defined. The less precise the definition, the less comparable the medical spending used to calculate the actuarial value will be, thereby reducing the measure’s suitability for comparing plans.

Even more questions arise when it comes to large employers and self-insured plans. The law exempts these employers from having to offer the essential benefits package. What is not clear is whether the package will nonetheless be used to standardized the estimation of actuarial value (for purposes of the 60% minimum value test), or whether alternatives will be explored (Exhibit 4).

EXHIBIT 4: ACTUARIAL VALUE DEFINITIONS DIFFER BETWEEN LARGE EMPLOYER PLANS AND OTHER PLANS		
	Individual (non-group) and Small group	Large Group
Actuarial Value “floor”	60%	60%
Medical Services Used in Definition	Essential Benefits Package	Guidance needed from HHS

If a different standard of medical services is used, then actuarial value comparisons between the large employer market and other markets (individual, small group) are less meaningful.

Furthermore, if the definition of medical services used to measure actuarial value is allowed to vary across large employers, then even comparing two large employer

plans won't be meaningful. For example, if an employer didn't cover hospitalization at all, but covered all other services at 65%, that plan could measure as being more generous than a plan that covered all services, including hospitalization, at 60%. However, the plan covering all services would actually be more generous, if the calculation were made based on a standard, comprehensive set of medical services.

Gary Claxton, of the Kaiser Family Foundation, suggested that an objective benchmark, such as a benchmark benefit package or dollar amount, could be used in determining whether the 60% test is met.

MODELING APPROACH USED TO ESTIMATE THE ACTUARIAL VALUE OF A GIVEN PLAN DESIGN

According to a study by the Kaiser Family Foundation, different actuarial value models can produce very different estimates, despite using common assumptions and being calibrated to a common average spending level.⁸ For example, for Silver plans with an actuarial value of 70%, the study reported a range of out-of-pocket maximums from \$6,350 per person to \$2,050 per person, and a deductible range from \$6,350 per person to \$1,550 per person, depending on the model being used. The differences were attributable not just to the fact that actuarial value targets can be met using a variety of plan designs. This variation was also due to differences in the models being used to produce the estimates – for example, differences in the claims distributions underlying the models or different assumptions about the strength of the utilization effect.

This raises another issue for regulators and policymakers. Even if the population and the scope of medical services is well defined, allowing the estimates to be made using a variety of modeling software will likely yield different results for the same plan design, reducing the measure's usefulness for comparing plans. The PPACA directs HHS to ignore "de minimis" variation in actuarial value estimates but the Kaiser results suggest that the variation could be far larger. Crafting a single model that is used for all calculations is one possible solution. Extensive benchmarking of independent models with some auditing of results is another. Requiring that the same underlying claims dataset be used would remove much, but not all, of the variation in estimates.

Conveying Actuarial Value to Consumers

Another question for regulators and policymakers is whether consumers can learn to use the actuarial value measures, as envisioned by the PPACA.

Consumers Union tested consumers' responses to measures of actuarial value in May 2011. The study tested the following actuarial value concepts that consumers will or could actually see as part of their health plan shopping:

- The "precious metal" coverage levels
- New "minimum value" disclosure for employer plans
- Actuarial value glossary definitions

The testing sessions began with open-ended questions about how consumers shop for health coverage. Consumers overwhelmingly reported that they care about “cost” but they don’t want the lowest cost plan, they want the best value plan they can afford.⁹ Their notion of value is sophisticated. It includes the scope of services covered, the share of the cost paid by the plan and whether their providers are in the network.

However, consumers can’t calculate plan value because it is very hard to assess the overall coverage any given plan offers. Myriad cost-sharing provisions go into this overall coverage assessment: deductibles, copays, coinsurance, benefit limits, services not covered, etc. Not surprisingly, consumers find it very difficult to “roll up” these plan features into an overall assessment of plan value.

This finding indicated that researchers should explore whether actuarial value could address this strong consumer desire to understand plan value.

According to the study, consumers felt comfortable with and even embraced the metal tier designations. The relative ranking of the tiers was easily grasped and intuitive to them. Consumers were familiar with these designations as they are used in other arenas, such as credit cards or the Olympics. They readily understood that Platinum plans have the highest premiums but the lowest out-of-pocket costs. Gold, Silver and Bronze, each in turn, were seen as having lower premiums but costing increasingly more out of pocket.¹⁰

The tiers were a useful roadmap for consumers. If their initial understanding of a plan’s specific cost-sharing features didn’t comport with the plan’s metal tier ranking, they knew to reexamine their analysis.

Specific estimates of actuarial value, however, were more difficult for consumers to grasp.

The federal disclosure designed to inform consumers whether or not a plan covers “at least 60% of allowed costs” was largely ignored by the consumers in the test group. To their minds, labeling the information as a “required federal disclosure” invited them to skip it. When asked to read the disclosure anyway, consumers didn’t understand its intent or import. An important contributing factor was that they didn’t understand the jargon. Terms like “allowed costs” were unfamiliar to them. Many also were unsure how to interpret the phrases “on average” and even misinterpreted or overlooked the phrase “at least.”

Consumers also had difficulty when the actuarial value of the plan was provided and the explanatory text used was similar to that of the 60% disclosure.

These “conventional” measures of actuarial value were not useful in comparing plans, at least in the absence of further refinement to the way the concepts are presented and new consumer education.

Consumers are looking for good value. They care about cost, but value doesn't mean lowest cost. Consumers can't calculate value, especially if they don't understand cost-sharing concepts.
- Lynn Quincy

However, other consumer venues had successfully employed averages that are calculated in a standardized way and used to compare products. Examples include the EPA's Miles Per Gallon sticker on cars and the FTC's Energy Guide designation on appliances. Consequently, the researchers recommended that alternative displays of actuarial value be explored with consumers. Actuarial value has the potential to address an important need identified by consumers – being able to easily identify the plan that offers the most coverage at a given price point. Furthermore, this is a concept that consumers will need to understand as they navigate the rules associated with the health law's 2014 reforms. Further testing will be needed to identify the vocabulary and format that would be more consumer-friendly than conventional displays of actuarial value.

Lynn Quincy, of Consumers Union, also noted that actuarial value estimates must be calculated so as to be truly comparable across plans so that they will be trusted and used by consumers.

What Can We Learn from the Massachusetts Experience?

In its 2006 reforms, Massachusetts utilized actuarial value concepts in ways that are similar to the usage in PPACA. The Massachusetts Connector's¹¹ former Chief Marketing Officer, Kevin Counihan, teased out some lessons for the audience.

The connector focused on making shopping and enrollment for coverage as transparent and simple as possible for consumers and small businesses. In February 2007, Massachusetts conducted a focus group study to (1) gain insight into consumer perceptions of actuarial value and the metal tiers, and how these tools affect the clarity of coverage options; (2) to share the information with health plans; and (3) to help inform consumer outreach and communication.

Mr. Counihan reported that consumers generally find health insurance boring, expensive, confusing and untrustworthy. More specifically, the participants in the Massachusetts focus groups found actuarial value confusing and would have liked concrete examples to help them get through the technical jargon. They found the metal categories helpful especially in terms of the *relative* value of the coverage (similar to the Consumer Union study findings). Consumers necessarily supplemented the actuarial value information with other information about provider network, premium, quality and health plan reputation. Providing additional decision support tools ranked number one of all the ways suggested by consumers to help them choose among insurance plans. For example, consumers said that an out-of-pocket expense calculator would be helpful and that they would like star rankings to rate plans.

Massachusetts policymakers recognized the problem of ensuring that the actuarial value estimates were “apples to apples.” Their approach was to proscribe the benefits in a Gold plan with an actuarial value deemed to be 92%.¹² Insurers had to demonstrate that plan designs offered in the other tiers, like Silver and Bronze, had the correct actuarial value relative to that Gold plan design. So, even if an

People are interested in what's covered, is my doctor in the network, how much does it cost.
- Kevin Counihan

insurer's estimation model showed a somewhat lower or higher value for the Gold plan, it could meet the Connector's requirements as long as its Silver and Bronze offerings were appropriate *relative* to the standardized Gold plan.

Interestingly, Massachusetts focus group testing revealed that grouping health plans into actuarial value tiers didn't go far enough. Consumers still found it difficult to compare their choices even within a tier, reflecting the fact that several plan designs—featuring different cost-sharing—can have the same overall actuarial value. In response, Massachusetts standardized its plan designs so that little variation remained within a tier. As a result, 27 plan designs were reduced to nine as part of the benefits standardization changes for coverage offered in 2010.¹³

Counihan noted that this illustrates the “paradox of choice.” People say they want choice, but they find too much choice confusing. The state's focus group testing found 6-9 plan designs to be the ideal number of choices for consumers.¹⁴

Actuarial Value as
used in PPACA
establishes a
general standard.
But, right now
there isn't only one
way to calculate it.
- Karen Pollitz

Conclusion

The concept of actuarial value plays a large role in the implementation of the Patient Protection and Affordable Care Act. It is a key piece of information that consumers will use to navigate their choices as they shop in the individual and small group markets. Actuarial value is also used to establish minimum thresholds for coverage.

This forum identified the key challenges and issues that must be addressed if actuarial value is to be used effectively in implementing the PPACA. First, the U.S. Department of Health and Human Services—charged with finalizing the rules around actuarial value—will need to define a methodology for calculating actuarial value so that it serves as a reliable method for comparing health plans and is trusted by consumers, yet is workable administratively. Defining the key parts of the calculation—the standard population and the scope of medical services (including the scope of services for large group and self-insured plans) – is a critical task that should ensure the measure's usefulness as a comparison tool. Another important task is to either create a standard method or model to perform the calculation. Alternatively, HHS could explore the effectiveness of benchmarking and auditing rules to ensure that different models produce roughly comparable results.

There is also a need for further study on how to convey actuarial value to consumers. Consumers care deeply about value, which they equate with the scope of medical services and the amount of financial protection available to them at a given premium. Current health plan summaries are insufficient to provide the overall coverage assessment they are seeking. Further consumer testing can inform whether actuarial value measures can meet this need and how the required measure can be clearly communicated to consumers.

In 2014, consumers will need to use measures of actuarial value to navigate the reformed health insurance landscape. Regulators and policymakers must provide reliable, meaningful information so that consumers can choose health insurance wisely and well.

PRESENTERS AND THEIR TOPICS	
What is Actuarial Value?	Lynn Quincy Senior Policy Analyst, Consumers Union
Potential Approaches to Calculating Actuarial Value	Cori E. Uccello Senior Health Fellow, American Academy of Actuaries
Estimating Techniques Affect Actuarial Value	Gary Claxton Vice President and the Director of the Health Care Marketplace Project, Kaiser Family Foundation
Would Consumers Use a Measure of Actuarial Value?	Lynn Quincy Senior Policy Analyst, Consumers Union
The Massachusetts Experience – A Practical Application	Kevin Counihan President of CHOICE Administrators Exchange Services

The forum was held October 17, 2011 at the Kaiser Family Foundation and sponsored by Consumers Union. Karen Pollitz, Senior Fellow with Kaiser Family Foundation, moderated the forum.

*The presentations and key studies can be downloaded from:
http://www.consumersunion.org/pub/core_health_care/018101.html*

*Lynn Quincy and Deanna Okrent prepared this synopsis of the October 17, 2011 meeting: **Creating a Usable Measure of Actuarial Value**. Consumers Union is grateful to the Kaiser Family Foundation for providing our meeting space.*

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ENDNOTES

- ¹ Personal communication with Roland McDevitt, Director, Health Care Research, Towers Watson. The estimate is a weighted average of the actuarial value of employer plans participating in the 2010 KFF/HRET employer survey. Both HMO and PPO style plans are included. The analysis considers only in-network cost sharing provisions. The estimate uses a standard population derived from the 2009 MarketScan medical claims database.
- ² An Exchange is a new health insurance marketplace that will be available to individuals, families and small businesses in 2014. Health insurance choices will be transparently displayed and shopping assistance will be available. Importantly, the new tax credits can only be used for coverage purchased through the Exchanges.
- ³ Specifically, the tax credits will be tied to the cost of the *second lowest cost* Silver plan.
- ⁴ For more on these subsidies, see *Explaining Health Care Reform: Questions About Health Insurance Subsidies*, April 2010, <http://www.kff.org/healthreform/upload/7962-02.pdf>.
- ⁵ American Academy of Actuaries, *Actuarial Value Under the Affordable Care Act*, July 2011.
- ⁶ The ACA defines essential health benefits to “include at least the following general categories and the items and services covered within the categories: ambulatory patient services; emergency services; hospitalization; maternity and newborn care; mental health and substance use disorder services, including behavioral health treatment; prescription drugs; rehabilitative and habilitative services and devices; laboratory services; preventive and wellness services and chronic disease management; and pediatric services, including oral and vision care.”
- ⁷ Guidance provided by HHS indicates that this set of benefits could vary between states but will be standardized within a state.
http://cciio.cms.gov/resources/files/Files2/12162011/essential_health_benefits_bulletin.pdf.
- ⁸ *What the Actuarial Values in the Affordable Care Act Mean*, Kaiser Family Foundation, April 2011.
- ⁹ Consumers Union and the Kleimann Communications Group, *Early Consumer Testing of Actuarial Value Concepts*, September 2011.
- ¹⁰ This tradeoff between premium and consumers’ out-of-pocket costs for services is generally true but it is possible that some very efficient plans could actually cost less than plans in a lower metal tier.
- ¹¹ The Massachusetts Connector is their term for the health insurance Exchange, a state-wide marketplace for purchasing health insurance.
- ¹² Note that the Massachusetts tiers are not identical to the tiers used by PPACA (see Exhibit 2).
- ¹³ The final plan designs included one Gold, three Silver, three Bronze and two young adult plans. *Health Reform Toolkit Series: Resources from the Massachusetts Experience, Determining Health Benefits Designs to be offered on a State Health Insurance Exchange*, November 2011.
<https://www.mahealthconnector.org/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/Health%2520Care%2520Reform/Overview/MassachusettsExperienceBenefitDesignsToolkit.pdf>.
- ¹⁴ Ibid.