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AMERICAN ACADEMY *of* ACTUARIES

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Mr. John Bertko, FSA, MAAA  
Director, Office of Special Initiatives and Pricing  
Center for Consumer Information and Insurance Oversight  
Centers for Medicare and Medicaid Services  
U.S. Department of Health and Human Services  
7501 Wisconsin Ave.  
Bethesda, MD 20814

Dear Mr. Bertko,

Members of the American Academy of Actuaries’<sup>1</sup> Health Practice Council appreciated the opportunity to meet recently with you and other representatives of the Center for Consumer Information and Insurance Oversight (CCIIO). At that meeting, you asked us for input on several questions regarding the structure of the actuarial value (AV) calculator, as discussed in CCIIO’s “Actuarial Value and Cost-Sharing Reductions Bulletin.” As indicated in the bulletin, the intent is for the AV methodology to provide a comparison of benefit generosity across plans while also promoting transparency.

This letter provides our initial responses to those questions. The Academy’s Health Practice Council also plans on submitting additional comments on the bulletin in a subsequent letter.

**Question 1: How should the cost-sharing inputs in the AV calculator be structured?**

It is our understanding that the AV calculator will consist of a series of continuance tables that will be used to determine the AV for a given plan design. The calculator’s input parameters will be certain cost-sharing elements of the plan. The issue is how detailed the input parameters need to be to capture the range of plan design elements and accurately calculate the AV, while at the same time keeping the model practical and easy to use. The CCIIO bulletin acknowledges that some plan designs will not be accommodated by the AV calculator directly and will need to rely instead on a revised or alternative method to calculate the AV.

When considering this question, we first considered the possible range of cost-sharing design elements. Although plans typically use four types of cost-sharing features—deductibles, coinsurance, copayments, and an out-of-pocket maximum—plans can apply these elements differently to different types of services. For instance, some plans use coinsurance for inpatient hospital care but copayments for outpatient office visits. Some plans subject all medical spending

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<sup>1</sup> The American Academy of Actuaries is a 17,000 member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualifications, practice, and professionalism standards for actuaries in the United States.

to the deductible while others exempt certain services from the deductible.<sup>2</sup> Table 1 presents a fairly comprehensive matrix of potential cost-sharing features by service type. Using such a detailed list of services and cost-sharing options likely would create the need for a large number of underlying continuance tables to reflect the various cost-sharing combinations.

To develop a more practical array of cost-sharing input parameters, we combined some categories and eliminated others. Using professional judgment, we simplified the input parameters by eliminating distinctions between cost-sharing/service category combinations that few plans use, as well as those that would not be expected to make a substantial difference in the AV.

Table 2 presents a condensed version of a matrix of potential cost-sharing features by service type. We acknowledge that even this condensed version would require a large number of continuance tables. In developing this table, we relied on professional expertise from actuaries familiar with plan designs in the individual and small group markets. We did not do any modeling to examine the effects on AV by eliminating or combining certain cost-sharing/service combinations. It would be appropriate for CCIIO to do some modeling using the data that will underlie the AV calculator to determine whether additional categories can be combined and/or if others need to be added.

In Table 2 we create two separate sub-tables: one for plans in which a combined deductible applies for medical and prescription drug spending; the other applies to plans with separate deductibles for medical and prescription drug spending. (The AV calculator interface could be structured such that users see only one table, based on inputs regarding whether they have combined or separate deductibles.) For plans with a combined deductible, we assume that the only services potentially exempt from the deductible requirement are emergency room care and office visits. For plans with separate deductibles for prescription drug spending, we assume that some drug categories (e.g., generics) also potentially could be exempt from the deductible.

Note that the tables include a column indicating whether a copayment applies on a per admission basis or a per day (or encounter or service) basis. Rather than creating separate continuance tables for the different ways that copayments can be applied, the model could be structured to convert per admission copayments to per day copayments, or vice versa.

As noted in our response to Question 5 below, rather than establishing prescription drug categories based on each plan's tiering structure, it may be simpler to categorize prescription drugs into four basic categories—generics, single-source brand drugs, multi-source brand drugs, and specialty drugs. If this structure is followed, the cost-sharing inputs likely would need to be weighted averages due to different tier formularies across issuers.

For simplicity, it may be appropriate for inputs to be based on single, not family, coverage. Family values generally are two or three times the single values and have little impact on relative AV.

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<sup>2</sup> Per the ACA, certain preventive services will be required to be covered with no cost sharing.

**Question 2: How should induced demand among more generous benefit packages be incorporated?**

Different cost-sharing levels will result in different utilization. Even after controlling for the tendency of individuals with higher health care needs to enroll in plans with lower cost-sharing requirements, individuals in plans with lower cost-sharing requirements will incur more spending. It is our understanding that CCIIO intends for the AV calculator to use different continuance tables that correspond to the various metal tier AVs to incorporate such utilization responses to different cost-sharing requirements. In other words, the continuance tables for silver plans will reflect utilization for plans with an AV of 70 percent.

Issuers using the AV calculator therefore will input not only the relevant cost-sharing parameters, but also the metal tier level. This raises potential problems regarding a mismatch between the metal tier level entered by the issuer and the resulting AV output by the AV calculator. For instance, the issuer could input that the plan is in the gold metal tier, but the AV output, based on the cost-sharing parameter inputs, could indicate that the plan is 70 percent, and therefore in the silver tier. To ensure that the AV is calculated appropriately, either the AV calculator would need to automatically adjust the metal tier parameter and re-run the calculation, or the issuer would need to re-enter the metal tier, indicate that the plan is in the silver tier, and re-calculate the AV. This iterative process would need to continue until the AV output by the calculator matches the metal tier input parameter.

If the iterative process is not incorporated automatically into the AV calculator, but instead will need to be performed by the issuer, the calculator should include safeguards to ensure the outputs are appropriate. Such safeguards could include one or more of the following options:

- An explicit error message that the AV calculated does not correspond to the metal level input parameter. It should further state that the program must be rerun as the AV calculated is not accurate.
- An indicator of whether the AV falls within the range allowed for the specified metal tier.
- Advance testing of the model to ensure consistency of AVs. For instance, starting with a bronze plan level and reducing cost sharing to a certain level should result in the same AV as starting with a gold plan and increasing cost sharing to that same level.
- A requirement that all issuers begin the AV calculator process using the silver level tables and then adjust the metal tier iteratively as appropriate.
- CMS-provided sample plan designs that, using the AV calculator, would meet the various AV targets. This would assist plans in gauging the metal tier levels.

Unless these types of safeguards are incorporated into the model, the integrity of the AV outputs will be compromised.

In addition to these considerations, for each silver plan, the AV calculator will need to calculate the AVs for three additional silver level plan variations to reflect cost-sharing reductions:

- Individuals with household incomes between 100 and 150 percent of the federal poverty level (FPL) would be eligible for a silver plan variation with an AV of 94 percent.

- Individuals with household incomes between 150 and 200 percent of FPL would be eligible for a silver plan variation with an AV of 87 percent.
- Individuals with household incomes between 200 and 250 percent of FPL would be eligible for a silver plan variation with an AV of 73 percent.

It is unclear whether the intention is for the AVs for the cost-sharing reduction plans to reflect utilization changes. If not, then the silver plan continuance tables would be appropriate. If utilization changes are to be incorporated, however, then the use of other metal tier continuance tables may be appropriate. As an alternative, separate continuance tables could be produced to reflect the AV of each of the silver plan variations.

**Question 3: How many geographic pricing tiers should be contained in the AV calculator?**

AVs tend to increase when health spending increases—whether due to high provider prices and/or higher utilization—because both the deductible and out-of-pocket limits are more likely to be exceeded. The CCIIO bulletin notes the intention, within the AV calculator, to apply different geographic pricing tiers across the states, with each state assigned to a particular tier. The aim is for AVs for plans in a particular state to better reflect the costs of care in that state. Note that a result of this would be that plans in high-spending areas would be able to meet AV targets with less generous cost-sharing requirements compared to plans in lower spending areas.

When determining how many geographic pricing tiers should be accommodated in the AV calculator, we suggest first determining a reasonable level of cost variation. For instance, if the widest variation in average costs that should be allowed is 10 percent, then this can guide how many cost areas would be needed. To help determine the tolerance for wider or narrower cost variations, it would be useful to examine how different changes in costs would affect the AV of a given benefit package. Given that the de minimis tolerance is  $\pm 2$  percent, it might be appropriate for any cost variations that would result in AV variations of greater than  $\pm 2$  percent to be in a different geographic pricing tier.

It is our understanding that because the health insurance exchanges will have statewide requirements, CCIIO intends for each state to be assigned to one cost category, even if some portions of the state are high-cost areas and other portions are low-cost areas. Statewide averages presumably will be used to determine which cost category will be used. The AVs, therefore, may not necessarily reflect the costs in any particular area of the state. This is less of a concern in states with less variation in health costs.

**Question 4: How should multiple network tiers be incorporated into the AV calculator?**

For most plans, it is appropriate for the AV calculator to focus solely on in-network cost-sharing requirements. Otherwise, compared with plans that offer in-network services only, plans that also offer out-of-network services, but with higher cost-sharing requirements, could be at a disadvantage. There may be instances, however, in which it is appropriate to incorporate a higher level (higher cost-sharing) in-network tier. For instance, in multi-tier networks, if the first in-network tier does not meet network adequacy standards, cost-sharing requirements for the higher level in-network tier should be incorporated. One option would be to use a blended cost-sharing parameter, reflecting the average between the first and second tier requirements, weighted by the distribution of utilization across the tiers. Such a blended rate could reflect however many tiers

are necessary to reach network adequacy requirements. Another approach simply would be to use the cost-sharing requirements of the tier with the highest expected utilization.

**Question 5: For prescription drug modeling, should formularies be treated in a simple manner, or should there be a list of drug categories (if so, what is this list)?**

The formularies can be treated in a simple manner by allowing for different cost-sharing requirements for four prescription drug categories—generic, single-source brand drugs, multi-source brand drugs, and specialty drugs. The cost-sharing inputs likely would need to be weighted averages due to different tier formularies across issuers.

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We welcome the opportunity to discuss with you at your convenience any of the comments presented in this letter. If you have any questions or would like to discuss these items further, please contact Heather Jerbi, the Academy's senior health policy analyst (202.785.7869; [Jerbi@actuary.org](mailto:Jerbi@actuary.org)).

Sincerely,

Thomas F. Wildsmith, MAAA, FSA  
Vice President, Health Practice Council  
American Academy of Actuaries

**Table 1**  
**Actuarial Value Calculator -- Possible Input Parameters -- Comprehensive Service List**

<i>Integrated Medical and Drug Deductible - or -</i>		<i>Separate Medical And Drug Deductibles</i>		
Deductible	\$	Deductible	Medical	Drug
Coinsurance	%	Coinsurance	%	%
OOP Maximum	\$	OOP Maximum	Total	
			\$	\$

  

Type of Benefit	Service	Subject to Deductible? (Y/N)	Subject to Coinsurance? (Y/N)	Coinsurance (if different from above)	Copay Amount (if applicable)	Copay Base (per admission/ per day)
Inpatient hospital stays	Facility - non-maternity					
	Facility - maternity					
	Professional - surgery					
	Professional - other					
Emergency room care	Facility					
	Professional					
Outpatient / Office / Other	Preventive	Assumed to be covered at 100%; no inputs necessary				
	Office visit - primary					
	Office visit - specialist					
	Surgery - facility					
	Surgery - professional					
	Diagnostic lab					
	Diagnostic imaging					
	Diagnostic imaging - advanced					
	Outpatient facility - other					
	Therapy (physical, occupational, speech)					
	DME/supplies					
	Mental health/substance abuse					
	Other					
Prescription drugs	Generic					
	Brand - single-source					
	Brand - multi-source					
	Specialty					

Source: American Academy of Actuaries, 2012

**Table 2**  
**Actuarial Value Calculator -- Possible Input Parameters -- Condensed Service List**

*Integrated Medical and Drug Deductible*

Deductible		\$
Coinsurance		%
OOP Maximum		\$

  

Type of Benefit	Service	Subject to Deductible? (Y/N)	Subject to Coinsurance? (Y/N)	Coinsurance (if different from above)	Copay Amount (if applicable)	Copay Base (per admission/ per day)
Inpatient hospital stays	Facility	Y	Y			
	Professional	Y	Y			
Emergency room care	Facility and professional					
Outpatient / Office / Other	Preventive	Assumed to be covered at 100%; no inputs necessary				
	Office visit - primary					
	Office visit - specialist					
	Surgery - facility	Y				
	Surgery - professional	Y				
	Diagnostic lab/imaging	Y				
	Advanced lab/imaging	Y				
	Therapy (physical, occupational, speech)	Y				
Prescription drugs	DME/supplies	Y				
	Generic	Y				
	Brand - single-source	Y				
	Brand - multi-source	Y				
	Specialty	Y				

*Separate Medical and Drug Deductible*

	Medical	Drug	Total
Deductible	\$	\$	\$
Coinsurance	%	%	
OOP Maximum			\$

  

Type of Benefit	Service	Subject to Deductible? (Y/N)	Subject to Coinsurance? (Y/N)	Coinsurance (if different from above)	Copay Amount (if applicable)	Copay Base (per admission/ per day)
Inpatient hospital stays	Facility	Y	Y			
	Professional	Y	Y			
Emergency room care	Facility and professional					
Outpatient / Office / Other	Preventive	Assumed to be covered at 100%; no inputs necessary				
	Office visit - primary					
	Office visit - specialist					
	Surgery - facility	Y				
	Surgery - professional	Y				
	Diagnostic lab/imaging	Y				
	Advanced lab/imaging	Y				
	Therapy (physical, occupational, speech)	Y				
Prescription drugs	DME/supplies	Y				
	Generic					
	Brand - single-source					
	Brand - multi-source					
	Specialty					

Y = Model assumes that service is subject to the deductible or coinsurance, as applicable.

Source: American Academy of Actuaries, 2012