

A PUBLIC POLICY PRACTICE NOTE

Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

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American Academy of Actuaries
MV/AV Practice Note Work Group



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Developed by the MV/AV Practice Note Work Group
of the American Academy of Actuaries



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**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

2013-14 MV/AV Practice Note Work Group

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Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

This practice note was prepared by the MV/AV Practice Note Work Group organized by the Health Practice Council of the American Academy of Actuaries. This document is intended to provide information to actuaries determining minimum value and actuarial value in accordance with the Affordable Care Act (ACA). Section 1302 of the ACA establishes the use of actuarial value to structure benefit tiers, specify a minimum level of coverage, and help consumers compare different plan designs and cost-sharing provisions. Similarly, Section 1401 of the ACA added Section 36B to the Internal Revenue Code of 1986, which creates a minimum value requirement for employer-sponsored plans (defined in terms of the plan's share of total costs).

This practice note is intended for use as a reference tool only and is not a substitute for any legal analysis or interpretation of the regulations or statutes. This practice note is not a promulgation of the Actuarial Standards Board, is not an Actuarial Standard of Practice (ASOP), is not binding upon any actuary, and is not a definitive statement as to what constitutes appropriate practice or generally accepted practice in the area under discussion. Events occurring subsequent to publication of this practice note may make the practices described in this practice note irrelevant or obsolete.

We welcome comments and questions. Please send comments to healthanalyst@actuary.org.

**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

TABLE OF CONTENTS

Introduction.....	5
Actuarial Value and Minimum Value.....	7
Plan Designs Not Accommodated by the AV and MV Calculators	9
Material Effect	9
Data Hierarchy	10
Examples that Contain All Data Required for Adjustment	11
Examples that Do Not Contain All Data Required for Adjustment.....	11
Value-Based Plan Design	12
Design-Based Safe Harbor Checklists	14
Actuarial Reports	15
Certification Language.....	16
Qualifications	17
Appendix 1—AV Adjustment Methodology—Illustrative Example	19
Approach and Calculation.....	21
Calculating the Impact of the Pharmacy Deductible	21
Calculating the Impact of Copays and Coinsurance	23
Calculating the Impact of Maximum Out of Pocket.....	23
Calculating a Final Adjusted AV	24
Appendix 2—Technical Guidance Based on Calculators Released in 2013	26

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

Introduction

This practice note is intended to provide information to health actuaries who will be determining minimum value (MV) and actuarial value (AV) for health insurance plans, including providing an independent actuarial certification, in accordance with the Affordable Care Act (ACA).¹ The information in this practice note is based on versions of the AV and MV calculators that were released in 2013 by the Department of Health and Human Services (HHS) and the Internal Revenue Service (IRS). There is no end date described in either the AV or MV calculator methodology documents. As such, the current version of each calculator can be used until a new version of the calculator is made available.

For actuaries reviewing employer-sponsored insurance (ESI) plans for compliance with the MV requirements as stipulated by the ACA, the IRS proposed rule on MV for eligible employer-sponsored plans outlined three ways that MV may be determined:²

- 1) The use of an MV calculator,
- 2) The application of safe-harbor provisions, and
- 3) An independent actuarial certification.

The IRS proposed rule also provided initial guidance on safe-harbor plan designs.³ This practice note is based on the information in the proposed rule, which is subject to change once finalized. The actuary should review regulatory material to ensure compliance with final guidance on this issue. It is anticipated that the MV determination of most plans will be accommodated by either the MV Calculator or the safe-harbor provisions.

There is significant conceptual and mathematical overlap between the AV required for individual and small group determination of “metal values” and the MV requirements for large-group plans, as well as large and small-group self-insured plans. There are also some important differences between the two. This practice note will address those similarities and differences in more detail.

In summary, the similarities are:

- 1) The calculations illustrate the percentage cost paid by the plan divided by the total covered cost for an overall standard population,
- 2) The calculations account for varying plan designs, and
- 3) Many variables need to be considered, such as the impact of plan design on resource demand and new and emerging plan designs that incorporate features to maximize value and promote efficiency.

¹ This practice note does not address standalone dental plans, which also require an actuarial certification for actuarial value, since limited regulatory guidance currently is available with respect to these plans. Actuaries are encouraged to monitor guidance issued by the Department of Health and Human Services (HHS) to determine treatment of these plans.

² 26 CFR Part 1—<http://www.gpo.gov/fdsys/pkg/FR-2013-05-03/pdf/2013-10463.pdf>

³ 26 CFR Part 1—<http://www.gpo.gov/fdsys/pkg/FR-2013-05-03/pdf/2013-10463.pdf>

**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

The major differences relate to the covered populations, benefit plans, underlying data, and required thresholds. The following chart highlights some of the differences.

Differences Between Actuarial Value and Minimum Value		
	Actuarial Value	Minimum Value
Covered Populations	Individual (non-grandfathered) and small groups expected to be insured in 2014. There will be some migrations from uninsured, Medicaid, and ESI into the populations that will purchase individual and small-group coverage in 2014 and beyond.	ESI for all employers. There will be some potential migration in and out of this population but likely not to the same extent as for individual and small group.
Benefit Plans	The metal plans need to cover the essential health benefits as outlined per regulation. There will be some benefit plan differences, but there may be more standardization within metal tiers than exists in the large-group market.	Current ESI has more significant benefit variations that need to be considered than the defined metal plans for individual and small group. Also, ESI plans do not need to cover all essential health benefits.
Underlying Data	Based on claims data reflecting small-group plans, allowing input for various plan design parameters to determine metal AV.	Based on claims data reflecting self-insured employer plans, allowing inputs for the plan's benefits, coverage of services, and cost-sharing provisions.
Thresholds	There are four metal tiers with a de minimis +/- 2 percent range.	There is a strict 60 percent or greater threshold requirement.

The AV and MV Calculators are designed to accommodate a wide range of plan designs but will not be able to accommodate all circumstances. If the AV or MV Calculator does not include a specific plan characteristic as an input, it does not mean that the plan characteristic should not be considered. The actuary would need to use his or her professional judgment to determine whether the input is material and warrants an adjustment. There likely will be circumstances that will require an independent certification for certain ESI MV calculations as well as similar adjustments for insured individual and small-group AV calculations.

The following are some of the circumstances that will be addressed in more detail in the rest of this practice note.

- 1) Adjustments for a non-standard plan design that can be calculated using the data contained in the calculator;
- 2) Adjustments for a non-standard plan design when the calculators do not contain the necessary data; and
- 3) Value-based insurance designs, tiered copays or other cost sharing, and wellness benefits.

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

The AV and MV calculations help support important provisions of the ACA. There are coverage and tax implications for employees and employers that are affected by the results of the MV calculation. The intent of the AV calculation is to provide future enrollees with comparisons that will enable them to make a more informed benefit selection. There will need to be many assumptions made as these calculations are developed. For future calculations, an actuary will need to revisit the assumptions made by the actuary in previous estimates. The intended use of this practice note is as a practice framework for actuaries today and a re-evaluation framework for future iterations of these calculators.

Actuarial Value and Minimum Value

AV is a concept that has been previously used by health care actuaries and may have a different definition compared to the one introduced by the ACA. For the sole purpose of this practice note, the terminology and definitions used are as follows:

- “Metal AV” is defined as the AV used to determine benefit packages that meet defined metal tiers for all non-grandfathered individual and insured employer-sponsored small-group market plans.⁴ In the individual and small-group markets, the metal AV is expected to be used by consumers to compare the relative generosity of health plans with different cost-sharing attributes. The calculator used to determine the AV will be referred to throughout this note as the “AV Calculator.”
- MV is used to determine the minimal value for all employer-sponsored insured group plans. In the group market, the MV determines whether an employer potentially is subject to a penalty (large group only). The calculator used to determine the MV will be referred to throughout this note as the “MV Calculator.”
- “Federal AV/MV” is used to reference both metal AV and MV.⁵

The final 2014 AV Calculator was released by HHS in February 2013.⁶ The final notice of benefit and payment parameters for 2015 established the 2014 AV Calculator as the calculator to be used for 2015.⁷ A final MV Calculator was made available by HHS and the Treasury Department in April 2013.⁸

⁴ While the practice note does not explicitly address cost-sharing subsidies, all of the information in the practice note applies to cost-sharing subsidy plans as well. For more information see the Final Notice of Benefit and Payment Parameters for 2014, Section 156.420: <http://www.gpo.gov/fdsys/pkg/FR-2013-03-11/pdf/2013-04902.pdf> pg15536-15537. AV will be calculated in determining benefit plans for cost-sharing reduction plans in addition to metal plans. See the guidance on AV methodology for more information on how to input cost-share reduction plans into the AV Calculator: <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2015-av-calculator-methodology.pdf>

⁵ For the purposes of individual and small group rate filings, there is also the concept of an “AV pricing value.” This is defined in the instructions to unified rate review template (URRT) as representing “the cost to the issuer of providing coverage under (each) plan (i.e., incurred claims and administrative costs) as a percentage of the cost of providing coverage for a fixed reference plan” (chosen by the actuary and identified in the actuarial memorandum). See the “Addendum to the Practice Note on Actuarial Practices Relating to Preparing, Reviewing, and Commenting on Rate Filings Prepared in Accordance with the Affordable Care Act” for more information on AV pricing value and other AV concepts related to the URRT.

⁶ <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/index.html#Plan Management>

⁷ The final rule can be found here: <http://www.gpo.gov/fdsys/pkg/FR-2014-03-11/pdf/2014-05052.pdf>; The 2015 AV Calculator can be found here: <http://www.cms.gov/cciio/Resources/Regulations-and-Guidance/index.html#Premium Stabilization Programs>

⁸ <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/index.html#Plan Management>

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

In the individual and insured small-group markets, the metal AV is defined as the ratio of (i) total expected payments by the plan for essential health benefits (EHBs) computed in accordance with the plan's cost-sharing provisions for a standard population over (ii) the total costs for the EHB that the standard population is expected to incur. Benefits that are not considered part of EHB are not included in the AV calculation. In the self-insured and large-group markets, the definition of MV is similar to metal AV, except that self-insured and large-group plans are not subject to EHB provisions. The MV Calculator allows service categories that are not included in the benefit plan to be reflected as excluded. Since the MV is a measure of relative plan richness, excluded services are valued as 0 in the numerator, but still contribute to the total cost for the standard population reflected in the denominator. Even though excluded services can be reflected directly using the calculator, incremental services would require an outside adjustment. Additional benefits not considered to be part of EHB may be applied as an increment to the MV developed using the MV Calculator.

Both of the calculators begin with a standardized population that is applied across all geographic locations. While the set of specific services included in the EHB set may vary by state, the AV calculator assumes that the difference between EHBs would not have a material impact. Beginning in 2015, a state may elect to utilize state-specific tables in the AV Calculator, with HHS pre-approval. The calculators then take into account cost-sharing parameters, but while the AV Calculator accounts for induced demand in the underlying assumptions, the MV Calculator does not.

Cost-sharing parameters include those related to deductibles, co-insurance, copays, and out-of-pocket limits. Only in-network cost sharing will be considered for the Federal AV/MV calculation, since out-of-network coverage typically comprises a small proportion of overall use (cost sharing for a tier in multi-tier network products are considered if the providers in that tier are in-network). See the section on *Plan Designs Not Accommodated by AV/MV Calculator* for further guidance on how to calculate the Federal AV/MV in instances in which the calculator cannot accommodate certain cost-sharing provisions.

Induced demand can occur when cost-sharing elements affect utilization behavior. For example, it generally is assumed that individuals in plans with lower cost-sharing requirements will use more services, even after controlling for differences in health status. The metal AV incorporates induced demand by establishing different continuance tables for each of the four metal tiers (i.e., platinum, gold, silver and bronze.) These continuance tables are each based on a standard population, but the utilization will reflect the relative plan generosity of the particular metal tier. The AV Calculator does not adjust for induced demand within a metal tier.⁹

Federal AV/MV is not the same as traditional actuarial values that may be used in pricing (i.e., premium relativity), and there are several items reflected in health plan premiums that are not considered in the Federal AV/MV Calculators. These items include, but are not limited to, provider negotiated payments, administrative costs, and the impact of care management and utilization management programs. In addition, the Federal AV/MV is calculated based on a standard population with a prescribed nationwide data set and specific assumptions on price and utilization. In many instances, these may differ significantly from a specific health plan's

⁹ <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2015-av-calculator-methodology.pdf>

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

population, price and utilization assumptions, and other assumptions used to develop premium rates. The Federal AV/MV Calculators should not be the sole source used for pricing. Overall, it is important for consumers, health plans, regulators, employers, and other interested parties to understand that two plan designs with the same Federal AV/MV may not have the same premium for the reasons stated above.

Typical pricing assumptions may reflect assumptions that impact the population covered or the cost levels of various services. However, the intent of the AV and MV calculation process is to apply a standardized population and cost structure. For example, an adjustment that would not be appropriate to apply to the output of the AV and MV Calculators would be reflecting a higher than typical incidence rate of a condition for enrollees covered under a value-based plan design that varies the benefit based on condition.

Plan Designs Not Accommodated by the AV and MV Calculators

In accordance with 45 CFR 156.135 and 156.145, there will be various situations in which the actuary will need to consider adjusting inputs to the AV or MV Calculators or making an actuarial adjustment to the result from the calculator. These may be due to limitations associated with the calculators or to features of unique or innovative plan designs that are expected to have a material effect on the plan's AV. These situations are referred to as non-standard plan designs.

Whenever an adjustment for a non-standard plan design is made, the actuary will need to consider whether the adjustment should be made to the input or the output. In most cases, it should be clear from a calculation perspective whether to adjust the input or the output. It is probably less likely that an actuary would be in a situation in which he or she could choose between calculating an adjustment to the input *or* to the output.

Material Effect

A non-standard plan design feature has a material effect if it changes the metal tier or if it changes whether the plan meets the MV threshold. Therefore, when considering whether a particular plan design feature(s) would have a material effect on the AV or MV calculation, the actuary would likely consider both the potential magnitude of the impact to AV/MV and the location of that particular plan within the de minimis range for AV. For example, if a plan design feature not accommodated by the AV Calculator is deemed to change the AV by 0.5 percent and the unadjusted AV/MV of the plan is 70 percent, then that particular feature could be considered immaterial with no adjustments required. However, if the unadjusted AV of the plan is 68 percent, a feature that would lower the AV by 0.1 percent could put the plan out of the de minimis 2 percent range for AV purposes.¹⁰ As such, it would be considered material and would require adjustments to the calculator's result. Likewise, for MV, while there is no de minimis range, the corresponding consideration would be how close that plan is to the 60 percent MV threshold and whether the plan design feature could change the result. A feature that would change the MV by 0.5 percent would be immaterial if the MV was near 80 percent, but a feature that would change the MV by 0.1 percent would be material if the plan was near 60 percent.

¹⁰ A de minimis range for AV purposes of +/- 2 percent is used for standard bronze, silver, gold and platinum plans while a de minimis range of +/- 1 percent is used for the silver cost-sharing reduction plans.

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

Data Hierarchy

In general, since an underlying assumption of the calculators' process is to reflect a standard population, the actuary would be prudent to attempt to use data and assumptions that are consistent with the calculators as much as possible when making adjustments for non-standard plan designs. In some cases, though, this will not be possible and the actuary will need to consider alternate sources of data or assumptions, such as carrier-specific data or market data (e.g., external data from consultants).

When determining which data sources to use if assumptions cannot be drawn directly from the calculators, the actuary should attempt to use data that most closely resembles the AV/MV Calculator continuance tables. When selecting other data sources the actuary should apply appropriate actuarial judgment and apply the following considerations.

1. Consistency of the covered population with the "standard" population
2. Data latency—more recent data is better than older data
3. The number of covered lives
4. Plan network design (i.e., HMO, PPO, POS)
5. Plan coverage features (e.g., deductible, coinsurance, copay)
6. Covered services alignment

In general, the actuary would consider the materiality of the plan design feature when judging the importance of using a different data source. The more material the feature and the larger the adjustment to AV/MV it will require, the more important it is to use data closer to the calculator's continuance tables. Features that are less material could be valued using data sources lower in the hierarchy. To first determine materiality, it may be appropriate to use a data source at the bottom of the hierarchy. Then, if the actuary determines the plan design feature is material, it would be prudent to use a data source higher on the data hierarchy. Further, the sensitivity of the value of that feature to the underlying data source being used would be taken into account. Materiality would, of course, be balanced against the availability of various data sources.

When normalizing data to a standard population, one goal should be to try to mimic the assumptions behind the data in the AV/MV Calculator continuance tables as closely as possible. Considerations for AV in the early years, taken from the AV methodology document,¹¹ should include: coverage of all essential health benefits, metal tier-specific induced demand, expected individual and small group national population including high-risk pool members, and including only continuously enrolled members. The MV methodology document explains similar assumptions behind the data in the MV Calculator that would be reviewed and considered for standardizing a population for MV.¹²

When normalized market or carrier-specific data is not available, the actuary will need to use professional judgment to adjust other data for appropriate AV/MV calculation purposes. The actuary typically would disclose what type of data was used and what adjustments were made. Credibility provisions are applicable and due care needs to be exercised.

¹¹ <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2015-av-calculator-methodology.pdf>

¹² <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/mv-calculator-methodology.pdf>

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

Materiality would need to be considered when making adjustments for standardization. If the plan feature has a material effect, then it is important to consider these adjustments. An actuary would use his or her best judgment to determine the relative importance of making adjustments for any of the considerations listed above. In the end, the data could be considered adequately “standardized” if all of the considerations listed above are incorporated to the extent that they would have changed the AV/MV result for a particular plan.

Examples that Contain All Data Required for Adjustment

The following non-exhaustive examples reflect situations in which an adjustment for a non-standard plan design can be calculated using the data contained in the calculator:

Example 1—Plans with copays (instead of coinsurance) that apply after the annual deductible. Common high-deductible health plans (HDHP) have pharmacy copays that apply after the deductible.

For plans with deductibles and copays that apply to certain services, the AV Calculator will first apply the copay and then the deductible. Most plan designs work in the opposite manner—the deductible applies first and then the copay. It is suggested in these cases, the actuary first determine if the order of applying the deductible or copay first has a material difference on the AV/MV. If the impact is material, then the plan design would need to be considered a non-standard plan design. To apply the impact of flat dollar copays after the deductible, the copays must be translated into effective coinsurance percentages for each pharmacy tier or medical type of service, which can be used as service-specific coinsurance values. Since the AV/MV continuance tables display average costs by service category at this level, that average cost can be used as a basis for the coinsurance calculation.

Example 2—Plans with coinsurance payments on prescription drugs that are either floored or capped at a set amount per script.

The AV/MV Calculators cannot handle this feature directly, but they do contain the average cost per script within each drug tier. This cost-per-script assumption can be used to translate this plan design feature into an equivalent flat coinsurance rate or flat copay.

Examples that Do Not Contain All Data Required for Adjustment

The following examples reflect situations in which the calculators do not contain all of the data required for an adjustment:

Example 1—Plans with a flat dollar copay that applies to outpatient (OP) surgery.

Since the AV/MV Calculators do not allow a copay cost-share variable to be input for only OP surgery, another estimate is needed to introduce the impact of cost sharing on only those services. In this case, however, the costs in the continuance table for unclassified OP services appear to include more than just OP surgery service events. In this situation, the actuary will need to assess the proportion of the unclassified OP that relates to OP surgery using external sources (e.g., carrier pricing assumptions or rate

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

manual input). Then the actuary would use this information to translate the copay to a coinsurance amount as an input to the calculator.

Example 2—Plans with an office visit copay limit that applies to the combination of primary care physician (PCP) and specialist visits.

The AV/MV Calculators cannot handle this feature directly; they only contain the necessary breakdowns in the continuance tables for PCP visits, not specialist visits. The actuary will need to use external sources for frequency and cost data based on the count of visits for PCP and specialist combined. The actuary may want to adjust the output to take this into consideration.

Example 3—Plans with an aggregate family deductible, in which the costs for all members of a family accumulate to one common deductible.

Claims data to handle cost sharing that accrues across family members for the AV/MV continuance tables were not collected or available. To value the impact to AV/MV of adding this feature, the actuary can rely on the claims distributions within the continuance tables, but he or she will have to employ those claims distributions in a separate modeling exercise outside of the calculator. The actuary can input the plan design into the calculator ignoring the common family deductible and apply an adjustment after the fact based on the actuary's modeling of what that particular feature is worth. Insurer-specific data would be used, if available, to document the effects of this feature.

Another approach to the family only accumulators is described CMS' letter to issuers on federally-facilitated and state partnership exchanges dated April 5, 2013, which reads as follows.

“If deductible and out-of-pocket maximum accrue only at the family level and not at the individual level, the issuer may either include the family deductible and out-of-pocket maximum into that actuarial value calculator or, if the issuer believes that the family plan cost-sharing features of the plan's cost-sharing features will make a material difference in the AV produced by the calculator, the issuer may use one of the §156.135(b) exceptions described above to calculate AV and include plan-specific data on how the family-specific cost sharing is adjusted.”

CMS' suggested approach of entering the family cost-sharing features into the calculator generally will produce relatively conservative results compared to the actual impact of those provisions. The actuary may wish to consider whether the degree of conservatism is too material, in their opinion, to determine the appropriate metal tier for this approach to be used. If so, the actuary should consider applying one of the exceptions available in Section 156.135(b).

Value-Based Plan Design

Although value-based plan designs present a slightly different complication in design that the standard AV and MV Calculators may not address, approaches to determining the adjustments to AV/MV results produced by the calculators should follow the general considerations underlying

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

the AV/MV determination. The following are examples of value-based plan designs that will require the actuary to modify the calculator's results if material:

- Condition-based plan provisions (e.g., reduced cost sharing to encourage diabetes monitoring/treatment);
- Treatment decisions by insured (e.g., place of service) impacting benefit levels; or
- Wellness incentives in plan design, including employer contributions to health reimbursement accounts (HRAs) or health savings accounts (HSAs) that vary based on member involvement in a wellness program.

For the MV test, it may be sufficient to value the plan based on the least generous cost-sharing options if the resulting value exceeds the required MV since the calculated value will be the lowest expected value for the plan and the test only requires that the plan exceed the MV. If the least generous plan option fails the required MV, then additional calculations/adjustments will be necessary. The metal assignments determined by the AV calculation for individual and insured small-group plans will require a more specific calculation to determine appropriate placement due to the limited range of AV defining each metal tier.

For most of the value-based plan design benefits, the actual cost-sharing provisions that apply to a medical service will depend on actions or conditions of the insured. The actuary will need to determine the expected portion of the claimant population to which each benefit variation will apply, so those programs that have more strict requirements may result in smaller populations than others. Ideally, the various expected portions of the claimant population would be determined based on a standardized population; otherwise, they would be determined using data in accordance with the materiality and data hierarchy rules. The underlying utilization rates in the continuance tables do not change. For the above examples:

- For condition-based provisions, both the prevalence of the condition and the expected rate of compliance with requirements for reduced cost sharing could be based on a standardized population or based on data in accordance with the data hierarchy.
- When benefit levels vary by place of service, the weights that are used to blend the different benefit levels would be based on a standardized population, or based on data in accordance with the data hierarchy.
- For wellness incentives plans, insignificant benefit differentials or excessive hurdles in wellness programs likely would result in standard/normal member cost sharing to be applied more often. In determining the adjusted HRA/HSA amount, for benefits varying by member involvement in a wellness program, the take-up rate of the wellness incentives would be based on a standardized population or based on data in accordance to the materiality and data hierarchy rules.

The treatment of wellness programs in the AV calculation will differ from treatment in the MV calculation process due to specific regulatory requirements associated with MV. Benefit increases based on tobacco use would be reflected in the MV calculation. In contrast, benefit increases based on wellness incentive programs not related to tobacco use would not be reflected in the MV calculation according to the proposed regulations. Since the AV regulation does not include this same restriction, it would be appropriate to reflect the anticipated mix of coverage by

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

applying appropriate weights to various coverage levels, reflecting incentive-level benefits and non-incentive benefits based on all wellness criteria.

Design-Based Safe Harbor Checklists

Notice 2012-31 and 45 CFR 156.145(a) provide guidance indicating that, in addition to use of the MV calculator, MV may be determined by using certain design-based safe harbors.^{13 14} The safe-harbor plan designs from the IRS are intended to be a relatively simple way for a sponsor of a group health plan to illustrate that the plan meets MV standards.

Three safe harbor plan designs have been identified.

- “1. A plan with a \$3,500 integrated medical and drug deductible, 80 percent plan cost-sharing, and a \$6,000 maximum out-of-pocket limit for employee cost-sharing.
2. A plan with a \$4,500 integrated medical and drug deductible, 70 percent plan cost-sharing, a \$6,350 maximum out-of-pocket limit, and a \$500 employer contribution to an HSA.
3. A plan with a \$3,500 medical deductible, \$0 drug deductible, 60 percent plan medical expense cost-sharing, 75 percent plan drug cost-sharing, a \$6,350 maximum out-of-pocket limit, and drug copays of \$10/\$20/\$50 for the first, second and third prescription drug tiers, with 75 percent coinsurance for specialty drugs.”¹⁵

If a plan covers all of the core benefits that are included in the MV Calculator (i.e., physician and mid-level practitioner care, hospital and emergency room services, pharmacy benefits, and laboratory and imaging services), and the plan is consistent with or more generous than the benefit levels described in one of the safe harbors, then the plan will be determined to meet MV requirements.

These safe harbors are examples of plan designs that satisfy the 60 percent threshold and, therefore, meet MV requirements. These safe harbors provide a way to determine MV without the use of the MV Calculator or additional calculations/adjustments requiring an actuarial certification.

The safe harbors described above are for determinations for the 2014 plan year. The safe harbors may be updated over time by the IRS. The actuary would need to ensure that he or she is referencing the most current definition of MV as defined by the IRS.

Note that a plan not meeting safe harbor requirements for MV does not necessarily mean that the plan does not meet MV requirements. Plans not meeting safe-harbor requirements potentially could meet MV requirements through use of the MV Calculator or separate actuarial certification.

¹³ Certain safe harbor plan designs were specified in 26 CFR Part 1— <http://www.gpo.gov/fdsys/pkg/FR-2013-05-03/pdf/2013-10463.pdf> .

¹⁴ The safe harbors described are specific to MV determinations and apply for the 2014 plan year. The maximum applied to out-of-pocket expenses described in the safe harbors are not applicable to high deductible health plans.

¹⁵ Ibid

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

Actuarial Reports¹⁶

When neither the MV Calculator nor the safe-harbor checklists can accommodate an employer-sponsored health plan due to some non-standard features, an actuary can determine the MV based on an analysis performed in accordance with generally accepted actuarial principles and methodologies. According to the IRS proposed rule,¹⁷ there are two options to accommodate plans with non-standard features. The first option is to use the calculator to generate an initial value then make appropriate adjustments. The second option is to determine the plan's value without using the calculator. However, both options have to be done based on the standard population, utilization, and pricing tables published by HHS, adjusted based on actuarial practices. Further, in the event that a plan uses the MV Calculator and offers an essential health benefit outside of the parameters of the MV Calculator, an actuary can determine the value of that benefit and add it to the result from the MV Calculator in accordance with generally accepted actuarial principles and methodologies.

For AV, issuers can either fit the plan design into the calculator and an actuary can certify that the design was fit appropriately, or use the AV Calculator for all major plan provisions and then make adjustments for certain other plan provisions in accordance with relevant ASOPs. Note an actuary does not have the option to forgo using the AV Calculator for individual and small-group plans as he or she would when determining MV for employer-sponsored plans.

Reports that communicate Federal AV/MV are actuarial communications. Such reports should be prepared in accordance with ASOP No. 41, *Actuarial Communications*.

The plan sponsor or the qualified health plan (QHP) issuer should retain the actuary's reports supporting the certification for a period that is required by law or regulation. It would be prudent for an actuary to retain copies of the reports as well.

The work group expects common practice to include the following in the report:

- The option the actuary is using in the certification.
- The basis for selecting the option chosen, including a brief summary on the methodology employed in determining the MV/AV and issues that were addressed in determining AV/MV.¹⁸ In the case of determining MV, the certified actuary would state the reason(s) for not using the MV Calculator or for not using the safe-harbor guidance.
- When adjustments are applied, confirmation as to whether only permitted factors were used. For example, provider discounts and the plan's own projected demographic changes would not be considered in the calculation.

¹⁶ The term "report" in this practice note refers collectively to the reports and working documents related to AV/MV determination.

¹⁷ 26 CFR Part 1—<http://www.gpo.gov/fdsys/pkg/FR-2013-05-03/pdf/2013-10463.pdf>

¹⁸ For example, if the calculator produces counterintuitive results (see Appendix), state the specific plan design, the result that was counterintuitive, the plan design that was used to produce the initial AV and the approach used to derive the adjusted AV. Or, if data other than HHS/state data is used in calculating adjustments to the calculator results, indicate the data that was used, why it was used, why it was appropriate to use that data, and how it was used to calculate the adjustments.

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

- In the event the calculator does not contain all of the data required for an adjustment, and alternative data other than the HHS/IRS/state's standard population data is used to calculate those adjustments, the basis for using the selected data and, when applicable, a description of the methodology used to normalize the data to a standard population.
- The certifying actuary should state his or her assumptions regarding what services go into the core benefit categories and what services are not included. The certifying actuary would need to use outside data sources and sensitivity testing to set assumptions.
- A summary of the plan provisions. The actuary would highlight those plan provisions that do not fit into the calculator and are deemed to have a significant impact on valuation.
- If the plan offers an EHB outside the parameters of the MV Calculator, and the actuary adds the value of that benefit to the result derived from MV, a statement of what benefits were added.
- A description of actuarial assumptions, methods, or data used to arrive at the actuarial adjustments and actuarial value in sufficient clarity and detail that another qualified health actuary can make an objective appraisal of them. The certifying actuary usually would address the reasonableness or appropriateness of such assumptions and methodology.
- In cases in which it is appropriate, the details on the scope of engagement, any sensitivity analysis performed, and any proprietary data/model used to estimate utilization and claims.
- Any additional work papers relevant to the work product.
- The final actuarial value for each of the plans evaluated.

Certification Language

MV certification is required for employer-sponsored plans with non-standard plan features that preclude the use of the MV Calculator or if MV cannot be determined using the safe-harbor checklist.

AV certification is required for non-grandfathered health plans offered in the individual and small-group markets when the plan design is not compatible with the AV calculator.

The certification should include the following:

- The purpose of the certification that states the certification is for employer-sponsored plans as required by 45 CFR Section 156.145 or for plans offered in the individual and small-group markets as required by 45 CFR Section 156.135.
- For each applicable plan, the alternative methodology the certification pertains to, the basis for selecting that alternative, and a description of the process that was used to develop the AV/MV.

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

- For MV, if the plan offers an EHB outside of the parameters of the MV Calculator, and the actuary adds the value of that benefit to the result derived from MV, the benefits that were added.
- A certification that the plan meets the 60 percent threshold for the MV determination in the case of an employer-sponsored plan; or a certification that the plan meets the AV requirements in the metal tiers, in the case of plans offered in the individual and insured small-group markets.
- Disclosure of the actuary's relationship to the issuer or the employer.
- A statement that the actuary is a member of the American Academy of Actuaries, meets the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* promulgated by the American Academy of Actuaries, and has the education and experience necessary to perform the work.
- A statement regarding the time period for which the AV/MV certification applies.
- A statement that the AV/MV was determined based on the plan's benefits and coverage data, the standard population, utilization and continuance tables published by HHS/state (or in consultation with the U.S. Department of the Treasury) for purposes of the valuation of AV/MV. The actuarial analysis is not appropriate for any other purpose. Other data sources used should be specified when applicable.
- A statement that the AV/MV was determined in accordance with the Actuarial Standards of Practice (ASOPs)¹⁹ established by the Actuarial Standards Board (ASB) and with applicable laws and regulations.
- Disclosure of the assumptions and/or type of data other than those provided by HHS/state (or in consultation with U.S. Department of Treasury), and the extent of verification for reasonableness or consistency of the data.
- Disclosure of other limitations, if any.
- Any other disclosure as required by any future guidance/regulations.

The actuary would be prudent to maintain documentation of the certification, demonstrations that he or she is a member of the American Academy of Actuaries, and that he or she meets the qualifications for performing such a certification. Documentation would be retained for the period as required by applicable laws and regulations.

Qualifications

Certification of the metal AV for the individual and insured small-group health market or the MV for employers is a statement of actuarial opinion. As such, the signing actuary is subject to the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United*

¹⁹ An ASB task force currently is developing a discussion draft for such an ASOP.

**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

States (including continuing education requirements) promulgated by the American Academy of Actuaries. Under the U.S. Qualification Standards (as may be revised or amended periodically), the actuary must satisfy requirements for basic education, experience, and continuing education in the practice area related to the statement of actuarial opinion before issuing a statement of actuarial opinion.

Since AV analysis as prescribed in the law and regulations is considered health benefit pricing analysis, the actuary's work experience and continuing education should include health benefit system pricing and analysis.

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

Appendix 1—AV Adjustment Methodology—Illustrative Example

The methodology that follows presents an illustrative example of how to calculate an adjustment to the metal AV. This example is only for illustrative purposes. It provides one approach, but it is not a *required* approach. For example, for carriers with data that the actuary deems credible, another approach would be to standardize that data as outlined in the methodology document.²⁰ If the actuary decided that the best data available to use is the data underlying the continuance tables of the AV/MV Calculators, the following is an example of another approach to use. When determining whether an approach such as this may be necessary, the actuary would consider both the magnitude of the impact to the Federal AV and the location of that particular plan within the de minimis boundaries. See the section on *Plan Designs Not Accommodated by the AV/MV Calculator* for more discussion on the issue of materiality. Note that while this example is based on the AV Calculator, a similar approach can be taken with the MV Calculator. These comments apply to the AV and MV calculators that were released in 2013.

When evaluating plan designs that have separate medical and pharmacy deductibles, as the pharmacy deductible is increased the AV reported by the AV Calculator also increases. Based on communication with CCIIO, it is the work group's understanding that actuaries have the flexibility to make an adjustment to the resulting AV and provide an actuarial certification in cases in which the AV Calculator cannot handle a non-standard plan design or does not provide an accurate summary of plan generosity.²¹

In the following illustrative individual plan, there is a medical deductible and a pharmacy deductible. The medical deductible only applies to hospital services, and the pharmacy deductible only applies to preferred brand, non-preferred brand, and specialty drugs. In addition to deductibles, there are copays. Figure 1 shows a screen shot of the AV Calculator of this illustrative plan design with a \$100 pharmacy deductible and pharmacy copays by tier of \$10/\$25/\$40/60 percent. The resulting AV is 73.6 percent. Figure 2 shows a screen shot from the AV Calculator with the same illustrative plan design, except with a \$500 pharmacy deductible. The resulting AV increases to 74.3 percent. The fact that the AV is increasing while the pharmacy deductible is increasing, with all other inputs being the same, is counterintuitive. The methodology that follows demonstrates an illustrative approach to calculating an adjusted AV for the hypothetical plan design shown in Figure 2.

²⁰ <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2015-av-calculator-methodology.pdf>

²¹ Section 156.135 “In paragraph (b), we proposed options for an issuer whose plan designs do not permit the calculator to provide an accurate summary of plan generosity” <http://www.gpo.gov/fdsys/pkg/FR-2013-02-25/pdf/2013-04084.pdf>

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

Figure 1: AV Calculator Screen Shot of Proposed Plan with \$100 Pharmacy Deductible

User Inputs for Plan Parameters

- Use Integrated Medical and Drug Deductible?
- Apply Inpatient Copay per Day?
- Apply Skilled Nursing Facility Copay per Day?
- Use Separate OOP Maximum for Medical and Drug Spending?
- Indicate if Plan Meets CSR Standard?
- Desired Metal Tier: Silver Silver

HSA/HRA Options	Narrow Network Options
HSA/HRA Employer Contribution? <input type="checkbox"/>	Blended Network/POS Plan? <input type="checkbox"/>
Annual Contribution Amount:	1st Tier Utilization:
	2nd Tier Utilization:

	Tier 1 Plan Benefit Design		
	Medical	Drug	Combined
Deductible (\$)	\$3,000.00	\$100.00	
Coinsurance (%; Insurer's Cost Share)	100.00%	100.00%	
OOP Maximum (\$)	\$6,250.00		
OOP Maximum if Separate (\$)			

Tier 2 Plan Benefit Design		
Medical	Drug	Combined

[Click Here for Important Instructions](#)

Type of Benefit	Tier 1				Tier 2			
	Subject to Deductible?	Subject to Coinsurance?	Coinsurance, if different	Copay, if separate	Subject to Deductible?	Subject to Coinsurance?	Coinsurance, if different	Copay, if separate
Medical	<input type="checkbox"/> All	<input type="checkbox"/> All			<input checked="" type="checkbox"/> All	<input checked="" type="checkbox"/> All		
Emergency Room Services	<input type="checkbox"/>	<input type="checkbox"/>		\$150.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
All Inpatient Hospital Services (inc. MHSA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$500.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Primary Care Visit to Treat an Injury or Illness (exc. Preventive, and X-rays)	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Specialist Visit	<input type="checkbox"/>	<input type="checkbox"/>		\$45.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Mental/Behavioral Health and Substance Abuse Disorder Outpatient Services	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Imaging (CT/PET Scans, MRIs)	<input type="checkbox"/>	<input type="checkbox"/>		\$75.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Rehabilitative Speech Therapy	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Rehabilitative Occupational and Rehabilitative Physical Therapy	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Preventive Care/Screening/Immunization	<input type="checkbox"/>	<input type="checkbox"/>	100%	\$0.00	<input type="checkbox"/>	<input type="checkbox"/>	100%	\$0.00
Laboratory Outpatient and Professional Services	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
X-rays and Diagnostic Imaging	<input type="checkbox"/>	<input type="checkbox"/>		\$45.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Skilled Nursing Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$500.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Outpatient Facility Fee (e.g., Ambulatory Surgery Center)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	67%		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Outpatient Surgery Physician/Surgical Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Drugs	<input type="checkbox"/> All	<input type="checkbox"/> All			<input checked="" type="checkbox"/> All	<input checked="" type="checkbox"/> All		
Generics	<input type="checkbox"/>	<input type="checkbox"/>		\$10.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Preferred Brand Drugs	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$25.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Non-Preferred Brand Drugs	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$40.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Specialty Drugs (i.e. high-cost)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	60%		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Options for Additional Benefit Design Limits:

Set a Maximum on Specialty Rx Coinsurance Payments? <input type="checkbox"/>	
Specialty Rx Coinsurance Maximum:	
Set a Maximum Number of Days for Charging an IP Copay? <input checked="" type="checkbox"/>	
# Days (1-10):	4
Begin Primary Care Cost-Sharing After a Set Number of Visits? <input type="checkbox"/>	
# Visits (1-10):	
Begin Primary Care Deductible/Coinsurance After a Set Number of Copays? <input type="checkbox"/>	
# Copays (1-10):	

Output

Calculate

Status/Error Messages:

Error: Result is outside of +/- 2 percent de minimis variation.

Actuarial Value:

73.6%

Metal Tier:

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

Figure 2: AV Calculator Screen Shot of Proposed Plan with \$500 Pharmacy Deductible

User Inputs for Plan Parameters

Use Integrated Medical and Drug Deductible?

Apply Inpatient Copay per Day?

Apply Skilled Nursing Facility Copay per Day?

Use Separate OOP Maximum for Medical and Drug Spending?

Indicate if Plan Meets CSR Standard?

Desired Metal Tier: Silver

HSA/HRA Options		Narrow Network Options	
HSA/HRA Employer Contribution?	<input type="checkbox"/>	Blended Network/POS Plan?	<input type="checkbox"/>
Annual Contribution Amount:		1st Tier Utilization:	
		2nd Tier Utilization:	

Tier 1 Plan Benefit Design			Tier 2 Plan Benefit Design		
Medical	Drug	Combined	Medical	Drug	Combined
Deductible (\$)	\$3,000.00	\$500.00			
Coinsurance (% , Insurer's Cost Share)	100.00%	100.00%			
OOP Maximum (\$)	\$6,250.00				
OOP Maximum if Separate (\$)					

Type of Benefit	Tier 1				Tier 2			
	Subject to Deductible?	Subject to Coinsurance?	Coinsurance, if different	Copay, if separate	Subject to Deductible?	Subject to Coinsurance?	Coinsurance, if different	Copay, if separate
Medical	<input type="checkbox"/> All	<input type="checkbox"/> All			<input checked="" type="checkbox"/> All	<input checked="" type="checkbox"/> All		
Emergency Room Services	<input type="checkbox"/>	<input type="checkbox"/>		\$150.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
All Inpatient Hospital Services (inc. MHSA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$500.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Primary Care Visit to Treat an Injury or Illness (exc. Preventive, and X-rays)	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Specialist Visit	<input type="checkbox"/>	<input type="checkbox"/>		\$45.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Mental/Behavioral Health and Substance Abuse Disorder Outpatient Services	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Imaging (CT/PET Scans, MRIs)	<input type="checkbox"/>	<input type="checkbox"/>		\$75.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Rehabilitative Speech Therapy	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Rehabilitative Occupational and Rehabilitative Physical Therapy	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Preventive Care/Screening/Immunization	<input type="checkbox"/>	<input type="checkbox"/>	100%	\$0.00	<input type="checkbox"/>	<input type="checkbox"/>	100%	\$0.00
Laboratory Outpatient and Professional Services	<input type="checkbox"/>	<input type="checkbox"/>		\$30.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
X-rays and Diagnostic Imaging	<input type="checkbox"/>	<input type="checkbox"/>		\$45.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Skilled Nursing Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$500.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Outpatient Facility Fee (e.g., Ambulatory Surgery Center)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	67%		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Outpatient Surgery Physician/Surgical Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Drugs	<input type="checkbox"/> All	<input type="checkbox"/> All			<input checked="" type="checkbox"/> All	<input checked="" type="checkbox"/> All		
Generics	<input type="checkbox"/>	<input type="checkbox"/>		\$10.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Preferred Brand Drugs	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$25.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Non-Preferred Brand Drugs	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$40.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Specialty Drugs (i.e. high-cost)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	60%		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Options for Additional Benefit Design Limits:

Set a Maximum on Specialty Rx Coinsurance Payments?	<input type="checkbox"/>
Specialty Rx Coinsurance Maximum:	
Set a Maximum Number of Days for Charging an IP Copay?	<input checked="" type="checkbox"/>
# Days (1-10):	4
Begin Primary Care Cost-Sharing After a Set Number of Visits?	<input type="checkbox"/>
# Visits (1-10):	
Begin Primary Care Deductible/Coinsurance After a Set Number of Copays?	<input type="checkbox"/>
# Copays (1-10):	

Output

Calculate

Status/Error Messages: Error: Result is outside of +/- 2 percent de minimis variation.

Actuarial Value: 74.3%

Metal Tier:

Approach and Calculation

Calculating the Impact of the Pharmacy Deductible

Within the AV Calculator there are worksheets that contain continuance tables with pharmacy claims only for each of the four metal tiers. Within each continuance table there are columns labeled “Generics,” “Avg. Generics Prescriptions,” “Preferred Brand,” “Avg. Pref. Brand Prescriptions,” “Non-Preferred Brand,” “Avg. Non-Pref. Brand Prescriptions,” “Specialty High-Cost,” and “Avg. Spec. Prescriptions.” The “Generics,” “Preferred Brand,” “Non-Preferred Brand,” and “Specialty High-Cost” columns each represents the average cost of spending per

**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

cumulative enrollees for that particular drug tier.²² The average prescription columns represent the average prescriptions per cumulative enrollees for that particular tier. Using these eight columns as well as the column showing the number of enrollees per range of spending (or “bucket”), several different statistics can be created on which to calculate the AV adjustment.

The illustrative plan design has:

- A \$500 pharmacy deductible on preferred brands, non-preferred brands and specialty drugs
- Copays of \$10 for generics, \$25 for preferred brands, \$45 for non-preferred brands, and
- 60 percent plan coinsurance for specialty drugs.

Several statistics can be calculated including cumulative enrollees and total dollars per bucket for each tier (i.e., generics, preferred brand, non-preferred brand, and specialty). Note that in this hypothetical plan design the pharmacy deductible only applies to preferred brand, non-preferred brand, and specialty drugs (i.e., Tiers 2, 3, and 4). In the absence of claim level detail, one approach is to use distribution information in the AV Calculator continuance tables to understand how the deductible would impact the preferred brand, non-preferred brand, and specialty drugs separately. For each bucket level, the proportion of spending by these three drug tiers is then calculated. At the lower bucket levels, the drug spending primarily will be split between preferred brands and non-preferred brands, while at the higher bucket levels, a larger portion of spending will be for specialty drugs. These proportions are then applied to the pharmacy deductible to determine the portion of the deductible allocated to each tier at each bucket level.

The following table shows illustrative calculations for generic drugs from the silver continuance table in the AV Calculator.

Illustrative Calculations for Generic Drugs (Silver Continuance Table – AV Calculator)					
A	XA	XB	XC	XD	XE
Up to	Cumulative Enrollees	Generics Cumulative Dollars	Generics by Bucket	Generics Cumulative Scripts	Generics Scripts by Bucket
\$0	115,374	\$0	\$0	1,538	1,538
\$100	201,280	\$3,254,807	\$3,254,807	231,010	229,473
\$200	237,666	\$7,318,961	\$4,064,154	450,069	219,059
\$300	261,677	\$11,488,708	\$4,169,747	647,675	197,606
	:	:	:	:	:
\$500,000	432,961	\$90,902,954	\$174	2,850,493	6
\$1,000,000	432,963	\$90,904,163	\$1,209	2,850,518	25

Column XA is the cumulative count from column B of the AV Calculator. Column XB is Column XA times Column E (“Generics”). Column XC is the difference from Column XB. Column XD is Column XA times Column F (“Avg. Generics Prescriptions”) and Column XE is the difference from Column XD. The same calculations can be performed for preferred brand,

²² See section titled “Constructing Continuance Tables” <http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2015-av-calculator-methodology.pdf>

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

non-preferred brand and specialty. Adding up the columns will give the total. Note that the total of these columns does not match the totals from either Column C or Column D of the AV calculator.

For each bucket level and each drug tier, the enrollee's cost sharing due to the deductible is calculated by comparing the average spending per enrollee per bucket for that particular tier to the portion of the deductible for that particular tier. If the average spending per enrollee per bucket is less than or equal to the deductible, then the enrollee is responsible for the total average spend. If the average spending per enrollee is greater than the deductible, then the enrollee is responsible for the amount of the deductible.

Calculating the Impact of Copays and Coinsurance

The next step is to calculate the enrollee cost sharing due to the copays and coinsurance after the deductible. First, the remaining percentage of allowable spending per bucket after the deductible for each tier is calculated. This is done by comparing the enrollee's cost sharing due to the deductible to the total allowable spending for that particular tier. Due to the use of distributions, the result of this exercise is that the remaining allowed percentage is uniform across the three tiers.

In this hypothetical plan design, there are copays for preferred brand and non-preferred brand and a coinsurance for specialty, after the deductible. The enrollee cost sharing due to copays for the preferred brand and non-preferred brand tiers is calculated by first applying the remaining percentage of allowable spend per bucket after the deductible to the total number of scripts per bucket. This results in the number of preferred brand and non-preferred brand scripts that are subject to a copay. This assumes a uniform average cost per script for scripts paid for under and after the deductible. These estimates of scripts are then multiplied by the corresponding copay amount for that particular tier. The enrollee coinsurance for the specialty tier is calculated by taking the remaining percentage of allowable spend per bucket after the deductible times the total spend for specialty drugs by bucket times the enrollee coinsurance percentage.

In this hypothetical plan design, the pharmacy deductible does not apply to generics; there is only a copay that applies for generic drugs. To calculate the enrollee cost sharing for generic drugs, the methodology is to take the total number of generic prescriptions times the copay amount.

The actuary may want to consider the effective value of a copay by making an adjustment to the copay amount to account for the impact of some drugs' allowed costs being less than the copay amount.

Total enrollee cost sharing (before the application of the enrollee out-of-pocket maximum) is calculated by summing the enrollee cost sharing due to the deductible, copays, and coinsurance.

Calculating the Impact of Maximum Out of Pocket

In this hypothetical plan design, there is a combined medical and pharmacy enrollee maximum out-of-pocket (MOOP.) The AV calculated in this methodology is just for pharmacy, but it is necessary to account for the impact of the combined MOOP. One approach is to estimate the pharmacy portion of the MOOP by calculating the proportion of pharmacy costs compared to total costs at each bucket level from the continuance tables in the AV Calculator. This proportion

Practice Note on Minimum Value and Actuarial Value Determinations Under the Affordable Care Act

is multiplied by the combined MOOP to estimate a pharmacy only MOOP at each bucket level. This estimated pharmacy only MOOP is compared to the average enrollee cost sharing per bucket before the MOOP, which is calculated in the steps above. If the amount of cost sharing per enrollee before the MOOP is less than the estimated pharmacy MOOP, then the average enrollee cost sharing per bucket after the application of the pharmacy MOOP is equal to enrollee cost sharing calculated in the steps above. If the average enrollee cost sharing per bucket before the MOOP is greater than or equal to the estimated pharmacy MOOP, then the average enrollee cost sharing per bucket equals the estimated pharmacy MOOP.

The final estimated pharmacy AV is then calculated by first multiplying the average enrollee cost sharing per bucket after the application of the pharmacy MOOP times the number of enrollees per bucket. The sum of this number across all buckets represents the total enrollee cost sharing. This amount divided by the total allowable pharmacy amount represents the enrollee's percentage of cost sharing and one minus this amount represents the issuer's percentage of cost sharing (i.e., the AV). Using this methodology and plan designs described above, the pharmacy-only portion of the AV for the \$100 deductible is approximately 78.7 percent and the pharmacy-only portion of the AV for the \$500 deductible is 70.5 percent.²³

Calculating a Final Adjusted AV

Once the pharmacy AV is calculated in the steps above, this value needs to be used as an adjustment to some base plan to determine a final AV for this hypothetical plan design. There may be several different approaches at this point. One approach is to assume the base plan is the same as the illustrative plan design being valued with the exception that there is no pharmacy deductible, as it appears it is the pharmacy deductible that is leading to the counterintuitive result in the AV Calculator. This value is 74.1 percent. First calculate the value of a pharmacy plan design with no deductible and copays of \$10 for generics, \$25 for preferred brands, \$40 for non-preferred brands and 60 percent plan coinsurance for specialty drugs is estimated using the approach described above, excluding the steps involving the deductible. This value is approximately 82.0 percent. Then the difference between this AV with no pharmacy deductible and the AV with a \$500 pharmacy deductible is calculated. This value is approximately 82.0 percent minus 70.5 percent, which equals 11.5 percent. The proportion of total pharmacy costs compared to total combined medical and pharmacy costs from the continuance tables in the AV calculator is then calculated. This value is \$1,090.77 divided by \$5,146.76, which equals 21.2 percent. This proportion is applied to the difference in AVs with no pharmacy deductible and a \$500 pharmacy deductible to calculate a final adjustment factor (21.2 percent * (11.5 percent), which equals 2.4 percent). This adjustment factor is then applied to the base plan AV derived from the AV calculator to determine a final AV (74.1 percent minus 2.4 percent, which equals 71.7 percent).

²³ Note that these results are based on using the total pharmacy allowable costs as the sum of each of the cost from each drug category (\$1,065.11 per enrollee) rather than the average cost from Column C of the silver continuance table in the AV calculator of \$1,090.77.

**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

The following table compares the AV results for both the \$100 pharmacy deductible plan and the \$500 pharmacy deductible using the AV directly from the AV calculator versus the results from the modified calculation described in this Appendix.

	AV Calculator	Modified Calculations
\$100 pharmacy deductible	73.6%	73.4%
\$500 pharmacy deductible	74.3%	71.7%

**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

Appendix 2—Technical Guidance Based on Calculators Released in 2013

Actuaries would be prudent to verify the reasonableness of the AV/MV that is either produced directly from the calculator or after applying adjustments. When the AV/MV calculators are applied to plan designs that the calculators are not designed to accommodate, the calculators may produce counterintuitive results. Based on communications with CCIIO, the work group understands that these cases fall into the category of a non-standard plan design. Therefore, actuaries have the flexibility to make an adjustment to the resulting AV and provide an actuarial certification. In these cases, the actuary would first identify a plan design for which he or she believes the AV/MV Calculator is producing logical results as a starting point. Then using data from the calculator or other appropriate data sources, the actuary would calculate an adjustment to be applied to the identified base plan. An example of this methodology is shown in the Appendix.

The following list below provides suggested technical guidance to the actuary when using the AV/MV calculator (as of 2014)²⁴:

- If a plan is a 100 percent coinsurance-based plan,²⁵ the actuary would not check the “Subject to Coinsurance” boxes.
- If a plan is a 100 percent coinsurance-based plan (and not a copay plan), the actuary would need to enter 99.99 percent in the coinsurance section of the “Tier 1 Plan Benefit Design” at the top of the template.
- If a plan has a deductible and then coinsurance on some services, the actuary would need to enter 99.99 percent in the coinsurance section of the “Tier 1 Plan Benefit Design” at the top of the template. Then the actuary would provide the relevant coinsurance amounts for each individual service item.
- If a plan has a deductible and then copays for most other services, the actuary would need to enter 100 percent in the coinsurance section of the “Tier 1 Plan Benefit Design” at the top of the template.
- If there is no copay on a service, the actuary would not enter \$0. The actuary would leave it blank.
- For plans with deductibles and copays that apply to certain services, the AV Calculator will first apply the copay and then the deductible. Most plan designs work in the opposite manner—the deductible applies first and then the copay. It is suggested in these cases that the actuary first determine if the order of applying the deductible or copay has a material impact on the AV. If the impact is material, then the plan design would need to be considered a non-standard plan design.
- In the continuance tables within the AV/MV Calculator, there are columns labeled “Average Cost per Enrollee (Max’d)” and “Average Cost per Enrollee (Bucket).” The “Average Cost per Enrollee (Max’d)” would be used if any calculations using the continuance tables are needed as it reflects adjustments to the distribution not reflected in

²⁴ The calculators referenced were released in 2013 for 2014 calculations. If the calculators are modified, this information may change.

²⁵ The percentages reflect what the plan pays and not what the consumer pays.

**Practice Note on Minimum Value and Actuarial Value Determinations
Under the Affordable Care Act**

the “Average Cost per Enrollee (Bucket).” If cost per enrollee numbers are needed, they should be derived from the “Average Cost per Enrollee (Max’d)” column.²⁶

- The medical and pharmacy continuance tables contain details for many different types of service categories. The applicable dollar amounts for the total of all service categories will not equal the applicable dollar amounts from the “Average Cost per Enrollee (Max’d)” column in the AV Calculator because the specific service category information has not been adjusted for the high-risk population.

²⁶ The Average Cost per Enrollee (Bucket) is the average cost per enrollee corresponding to the “up to” amount shown in the first column. The Average Cost per Enrollee (Max’d) is the average cost per enrollee with each enrollee’s cost capped at the amount shown under the “up to” column. There are fewer enrollees used in the denominator of the Average Cost per Enrollee (Bucket) than used in the Average Cost per Enrollee (Max’d) statistic. This is because only those enrollees with costs limited to the “up to” amount are considered in the Average Cost per Enrollee (Bucket). All enrollees are counted in determining the Average Cost per Enrollee (Max’d) statistic; however, each row limits the cost received by an enrollee to the maximum described in the “up to” amount.