



A Summary of the 2020 Actuarial Value Calculator



A Summary of the 2020 Actuarial Value Calculator

AUTHOR Achilles Natsis, FSA, MAAA
SOA Health Research Actuary

The Centers for Medicare and Medicaid Services (CMS) recently released the final 2020 Actuarial Value Calculator and Actuarial Value Calculator Methodology in the link below: <https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2020-AV-Calculator-Methodology.pdf>

The Actuarial Value (AV) Calculator is a Microsoft Excel tool released annually used by participating plans to determine the metal level (Platinum/Gold/Silver/Bronze) of a particular benefit design. Actuarial value is defined as the ratio of total paid plan costs to total allowed plan costs. Paid plan costs are medical plan expenses that are paid by health insurance companies, while allowed plan costs are the total costs paid to the providers, as defined by the Affordable Care Act rules. These total costs include insurer paid amounts and cost sharing paid by insured individuals. The Affordable Care Act has designated four main classifications of plans known as metal levels, differentiated by Actuarial Value levels. Platinum plans have an AV of 90%, Gold plans have an AV of 80%, Silver plans have an AV of 70% and Bronze plans have a 60% AV. These plans also have a de minimis range which restricts how much AV values can vary above or below the target. In April 2017, CMS amended de minimis ranges from -2/+2 % to -4/+2 %. This means that a Gold plan could have a calculated AV between 76% and 82%. In addition to that, Bronze plans which cover and pay for at least one major service before deductible or meet the requirements of a High Deductible Health Plan (HDHP) are allowed a range of -4/+5%. Table 1 below shows the AV ranges for each metal level with the most up to date de minimis ranges.

Table 1
HEALTH INSURANCE EXCHANGE METAL LEVELS

Metal Level	Platinum	Gold	Silver	Bronze	Bronze HDHP
Target AV Percentage	90%	80%	70%	60%	60%
De Minimis Range	-4 /+2	-4 /+2	-4 /+2	-4 /+2	-4 /+5
Maximum AV Percentage	92%	82%	72%	62%	65%
Minimum AV Percentage	86%	76%	66%	56%	56%

Silver Plans are considered to be the marketplace standard plan. The second lowest premium silver plan in each state is used as the benchmark for determining subsidies of individuals below 250% of the federal poverty level (FPL). These individuals can use cost sharing reduction subsidies to increase the actuarial value of their silver plans. Table 2 below maps each cost sharing reduction plan to its target Actuarial Value, Income Range, and designated continuance table to use from the AV calculator.

Table 2
COST SHARING REDUCTION SILVER PLANS

Actuarial Value	Continuance Table to Use	% of FPL
73%	Silver	200-250%
87%	Gold	150-200%
94%	Platinum	100-150%

The AV calculator consists of a series of continuance tables by metal level for each benefit type. . These tables include cumulative distributions of both claims costs and claims frequency by cumulative claims levels. The Table 3 below shows ranges of continuance table values along with the incremental changes between those values. The final continuance table row is for unlimited claims.

Table 3
CONTINUANCE TABLE INCREMENT RANGES

Minimum Claim Level	Maximum Claim Level	Increment
\$ -	\$ 6,500	\$ 100
\$ 6,500	\$ 7,500	\$ 1,000
\$ 10,000	\$ 50,000	\$ 10,000
\$ 100,000	\$ 500,000	\$ 100,000
\$ 10,000	\$ 50,000	\$ 10,000
\$ 1,000,000	\$ 2,000,000	\$ 1,000,000

The 2020 Actuarial Value Calculator continuance table values use a similar methodology to last year. The starting point is 2015 claims from the Health Intelligence Company, LLC (HIC) database. Table 4 below shows the trends that were utilized to project 2015 claims data to 2010: The only change from 2019 to 2020 was the additional trend for Calendar Year 2020.

Table 4
AV CONTINUANCE TABLE ANNUAL TREND

Annual Trend	2016	2017	2018	2019	2020
Medical	3.25%	3.25%	3.25%	5.10%	6.10%
Pharmacy	11.50%	11.50%	11.50%	11.50%	9.80%

In addition, the Maximum out of Pocket (MOOP) limit estimates were increased from \$8,000 in 2019 to \$8,250 in 2020. The actual MOOP limits for 2020 will be finalized later this year. Another change to the AV calculator was the deletion of the column labeled “Number of Enrollees” to eliminate confusion about weightings between cumulative cost levels since the enrollee distribution within the tables does not remain static from year to year. Finally, a correction was made to the Occupational and Physical Therapy services to map to its own cost sharing specifications rather than incorrectly referencing those of “Imaging Services”.

CMS evaluated enrollee level EDGE claims for the AV calculator but decided not to use it in the AV calculator. The EDGE database is where ACA claims collected from insurers are stored. Their intent is to use future years' EDGE data to build the AV calculator. This could include updating claims distributions, updating enrollee distributions and inferring trends. In addition, the EDGE data has metal level broken out (unlike the current data being used), which could mitigate the need to impute metal level. However, this will need to be balanced against the need for AV stability from year to year.

There were some other observations to note within the AV calculator itself. The continuance tables varied significantly in terms of average Per member per month cost per enrollee for total annual spend amounts below the maximum. When including all levels of paid claims, the change in PMPM costs from the 2019 AV Calculator to the 2020 AV Calculator was 6.1% for Medical expense categories and 9.8% for drug expense categories which reflects the application of the trends shown above. In addition,, there were no observed trends in frequencies of claims (utilization). When benefits below the maximum were analyzed, both medical and pharmacy trends were lower. This is due to leveraging of costs resulting in shifting of some of the PMPMs to higher cost continuance levels. There were some negative utilization changes observed from 2019 to 2020, particularly in some of the lower cumulative expense categories.

Overall, it should be noted that changes to the AV calculator were routine in 2020. However, this does not mean that the resulting cumulative distributions were entirely intuitive. It is important to remember that the AV calculator was designed to determine if specific benefit designs meet the de minimis criteria and not for plan pricing. Because of this and in the interest of minimizing disruption to benefit design, there were some unexpected variations observed when comparing the 2019 and 2020 continuance table entries. CMS removed number of enrollees from the continuance table in 2020 to de-emphasize relative population weights and to make it harder to use the AV calculator for pricing. Going forward, CMS intends to transition to using actual Exchange Claims Experience from the EDGE database. This will help the continuance tables to be more representative of the participating population and plan designs sold on the actual exchanges.