COMPUTATION OF THE 2018 VALUE MODIFIER

Overview

The Value-Based Payment Modifier (Value Modifier) adjusts Medicare Physician Fee Schedule (PFS) payments to physicians, physician assistants (PAs), nurse practitioners (NPs), clinical nurse specialists (CNSs), and certified registered nurse anesthetists (CRNAs) in groups with 2 or more eligible professionals and to those who are solo practitioners (as identified by their Medicare-enrolled Taxpayer Identification Number [TIN]), based on the quality and cost of care furnished to their Medicare Fee-for-Service (FFS) beneficiaries. This fact sheet summarizes how the 2018 Value Modifier was calculated. More detailed information on the computation of the 2018 Value Modifier is available on the 2016 QRUR and 2018 Value Modifier website at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html.

What is the Value Modifier?

Section 3007 of the 2010 Patient Protection and Affordable Care Act (ACA) directs the Secretary of the U.S. Department of Health and Human Services to establish a budget-neutral Value Modifier that provides for differential payment under the Medicare PFS to a physician, group of physicians, or other eligible professionals (as defined in subsection (k)(3)(B) of the ACA) as the Secretary determines appropriate, based upon the quality of care compared to the cost of care furnished to Medicare FFS beneficiaries during a performance period. The Value Modifier is separate from the payment adjustment under the Physician Quality Reporting System (PQRS). This fact sheet summarizes what the Value Modifier is and how it will be implemented for Medicare PFS payments in 2018, which is the final year that Medicare will apply the Value Modifier to payments for services billed under the Medicare PFS.

Who will be subject to the Value Modifier in 2018?

In calendar year 2018, the Value Modifier will apply to payments for physicians, PAs, NPs, CNSs, and CRNAs billing under the Medicare PFS in groups with 2 or more eligible professionals and solo practitioners, including those who participated in a Medicare Shared Savings Program Accountable Care Organization (ACO) in 2016. Eligible professionals consist of physicians, practitioners,[1] physical or occupational therapists, qualified speech-language

[1] Practitioners include PAs, NPs, CNSs, and CRNAs. For a list of providers designated as eligible professionals by CMS based on their two-digit CMS specialty codes, please see the document entitled "Detailed Methodology for the 2018 Value Modifier and 2016 Quality and Resource Use Report," available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/Detailed-Methodology-for-the-2018-Value-Modifier-and-2016-Quality-and-Resource-Use-Report-.pdf.

therapists, and qualified audiologists. Groups and solo practitioners are identified by their Medicare-enrolled TIN. In 2018, the Value Modifier will not be applied to payments for eligible professionals who are not physicians, PAs, NPs, CNSs, and CRNAs.

In 2018, the application of the Value Modifier will be waived for groups and solo practitioners, as identified by their Medicare-enrolled TIN, if at least one eligible professional who billed for Medicare PFS items and services under the TIN during 2016 participated in the Pioneer ACO Model, the Comprehensive Primary Care (CPC) initiative, the Next Generation ACO Model, the Oncology Care Model, or the Comprehensive End Stage Renal Disease (ESRD) Care Model and none of the TIN's eligible professionals participated in a Shared Savings Program ACO in 2016. Calendar year 2016 is the performance period for the Value Modifier that will be applied in 2018.

How will Value Modifier payment adjustments be applied in 2018?

CMS will divide TINs subject to the 2018 Value Modifier into two categories on the basis of their participation in the PQRS during 2016.

Category 1 TINs. Category 1 will include:

- groups that (a) avoid the 2018 PQRS payment adjustment as a group or (b) have at least 50 percent of the eligible professionals in the group avoid the 2018 PQRS payment adjustment as individuals, and
- solo practitioners who avoid the 2018 PQRS payment adjustment as individuals.

CMS calculates the 2018 Value Modifier for Category 1 TINs using a quality-tiering approach based on their 2016 performance. The approach can result in an upward or neutral (meaning no adjustment) payment adjustment to physicians, PAs, NPs, CNSs, and CRNAs billing under the TIN in 2018 based on performance on quality and cost measures in 2016. Physicians, PAs, NPs, CNSs, and CRNAs in Category 1 TINs will not be subject to a downward adjustment in 2018.

Under quality-tiering, Category 1 TINs, regardless of size, can earn an upward payment adjustment for demonstrating High Quality and/or Low Cost. Because the Value Modifier each year must be budget-neutral, the size of the upward adjustment will be based on an adjustment factor (AF) calculated to redistribute downward adjustments from Category 2 TINs (defined below) to the high-performing TINs. The precise size of the AF will vary from year to year based on performance, reporting status, and projected billings. The AF for the 2018 Value Modifier will be posted at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html. TINs that qualify for an upward adjustment under quality-tiering will also be eligible for an additional upward payment adjustment of +1.0 times the AF, if their attributed beneficiary population (or, for Shared Savings Program ACO participant TINs, their ACO's attributed beneficiary population) had an average CMS-Hierarchical Condition Category (CMS-HCC) risk score in the top 25 percent of all beneficiary CMS-HCC risk scores nationwide in 2016.

Payment adjustments under the 2018 Value Modifier are based on a proposal that was included in the 2018 Medicare PFS Proposed Rule (82 FR 34124) and is subject to change.

Table 1 below illustrates the applicable adjustments under the quality-tiering methodology for Category 1 TINs.

Table 1. Quality-tiering categories and 2018 Value Modifier payment adjustments for physicians, PAs, NPs, CNSs, and CRNAs in Category 1 TINs

	Low Quality	Average Quality	High Quality
Low Cost	0.0%	+1.0 x AF*	+2.0 x AF*
Average Cost	0.0%	0.0%	+1.0 x AF*
High Cost	0.0%	0.0%	0.0%

* High-performing TINs treating high-risk beneficiaries (based on mean CMS-HCC risk scores) will receive an additional adjustment of +1.0 times the AF.

For Shared Savings Program ACO participant TINs, Category 1 will include:

- TINs whose ACO successfully reported quality data to the PQRS through the Group Practice Reporting Option (GPRO) Web Interface as required by the Shared Savings Program and avoided the 2018 PQRS payment adjustment; and
- TINs whose ACO did not successfully report quality data to the PQRS through the GPRO Web Interface, but who themselves reported quality data to the PQRS outside of the ACO and (a) avoided the 2018 PQRS payment adjustment as a group, (b) at least 50 percent of the eligible professionals in the group avoided the 2018 PQRS payment adjustment as individuals, or (c) for solo practitioners, avoided the 2018 PQRS payment adjustment as individuals.

Quality-tiering is also applied differently for Shared Savings Program ACO participant TINs. For these TINs:

- if the ACO successfully reported quality data to PQRS, then the participant TIN's Quality Composite Score will be based on that ACO-level quality data;
- if the TIN participated in more than one ACO in 2016, then its Quality Composite Score will be based on the performance of the ACO with the highest numerical Quality Composite Score, among the ACOs that avoid the 2018 PQRS payment adjustment;
- if the ACO did not successfully report quality data to PQRS and the participant TIN successfully reported to the PQRS outside of the ACO, then its Quality Composite Score will be classified as Average Quality;
- their Cost Composite Score will be classified as Average Cost.

Tables 2 and 3 below illustrate the applicable adjustments under the quality-tiering methodology for Shared Savings Program ACO participant TINs.

Table 2. Quality-tiering categories and 2018 Value Modifier payment adjustments for physicians, PAs, NPs, CNSs, and CRNAs in Shared Savings Program TINs whose Shared Savings Program ACO successfully reported quality data to PQRS

	Low Quality	Average Quality	High Quality
Low Cost	*Does not apply*	*Does not apply*	*Does not apply*
Average Cost	0.0%	0.0%	+1.0 x AF*
High Cost	*Does not apply*	*Does not apply*	*Does not apply*

* High-performing TINs treating high-risk beneficiaries (based on mean CMS-HCC risk scores) will receive an additional adjustment of +1.0 times the AF. Because Shared Savings Program ACO TINs will be designated as Average Cost, High and Low Cost tiers do not apply to these TINs.

Table 3. Quality-tiering categories and 2018 Value Modifier payment adjustments for physicians, PAs, NPs, CNSs, and CRNAs in Shared Savings Program TINs whose Shared Savings Program ACO did not successfully report quality data to PQRS but the TIN successfully reported outside of the ACO

	Low Quality	Average Quality	High Quality
Low Cost	*Does not apply*	*Does not apply*	*Does not apply*
Average Cost	*Does not apply*	0.0%	*Does not apply*
High Cost	*Does not apply*	*Does not apply*	*Does not apply*

Shared Savings Program TINs classified as Category 1 as a result of reporting quality data to the PQRS outside of the ACO will be classified as Average Quality-Average Cost.

For additional information on how the 2018 Value Modifier will be applied to Shared Savings Program ACO participant TINs, please see the document entitled "Medicare Shared Savings Program Interaction with the 2018 Value Modifier: Frequently Asked Questions," available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2018-VM-MSSP-FAQs.pdf.

Category 2 TINs. Category 2 will include TINs subject to the 2018 Value Modifier that do not meet the criteria for inclusion in Category 1.

For Category 2 TINs, the 2018 Value Modifier will be set at:[2]

- negative one percent (–1.0%) (a downward payment adjustment) for TINs with between 1 and 9 eligible professionals that include at least one physician and for TINs (regardless of size) that consist of only nonphysician eligible professionals who are PAs, NPs, CNSs, and CRNAs; and
- negative two percent (–2.0%) (a downward payment adjustment) for TINs with 10 or more eligible professionals that include at least one physician.

[2] The Value Modifier payment adjustment will be applied separately from any PQRS negative payment adjustment the TIN or individual eligible professionals in the TIN may incur.

Quality and Cost Composite Score calculations

For Category 1 TINs, the Quality and Cost Composite Scores that will be used for quality-tiering summarize each TIN's performance on quality measures across six quality domains and on cost measures across two cost domains, as shown in **Table 4**.

For TINs that participated in a Shared Savings Program ACO in 2016, the Cost Composite Score will be classified as Average Cost. If the ACO successfully reported quality data to the PQRS, then each participant TIN's Quality Composite Score used for quality-tiering will be based on the ACO's performance on quality measures across five quality domains: Effective Clinical Care; Person and Caregiver-Centered Experience and Outcomes; Community/Population Health; Patient Safety; and Communication and Care Coordination. If the ACO did not successfully report quality data to the PQRS and the participant TIN successfully reported to the PQRS outside of the ACO, then its Quality Composite Score will be classified as Average Quality.

Table 4. Measure domains in the Quality and Cost Composite Scores

Quality domains	Cost domains
1. Effective Clinical Care 2. Person and Caregiver-Centered Experience and Outcomes 3. Community/Population Health 4. Patient Safety 5. Communication and Care Coordination 6. Efficiency and Cost Reduction	1. Per Capita Costs for All Attributed Beneficiaries 2. Per Capita Costs for Beneficiaries with Specific Conditions

How is measure performance calculated?

The calculation of composite scores begins by standardizing performance on individual quality and cost measures for which the TIN has the minimum required number of eligible cases and a benchmark for the measure is available.[3]

Standardizing measure performance transforms measures with disparate scales to a common scale, which enables different measures to be compared and combined with one another into a composite. Measures are standardized relative to a national benchmark, such that 0 represents the benchmark rate and the standardized score represents the number of standard deviations the measure score is from the benchmark. Specifically, measure-level performance is standardized by subtracting the benchmark for the measure from the TIN's performance rate and dividing by the case-weighted standard deviation of the measure.

The minimum number of eligible cases for all quality and cost measures is 20, with two exceptions. The Medicare Spending per Beneficiary (MSPB) cost measure requires at least 125 eligible episodes to be included in the Cost Composite Score. The 30-day All-Cause Hospital Readmission measure requires at least 200 eligible cases to be included in the Quality Composite

[3] Measures for which no benchmark is available are not included in Value Modifier calculations, but measure results are included in the QRURs for informational purposes.

and applies only to TINs with 10 or more eligible professionals; however, the ACO-level 30-day All-Cause Hospital Readmission measure calculated for Shared Savings Program TINs is included in the Quality Composite Score regardless of case size. In addition, beginning with the 2016 performance period, the Consumer Assessment of Healthcare Providers and Systems (CAHPS) for ACOs survey will be included in the Quality Composite Score for Shared Savings Program TINs.

For the 2018 Value Modifier calculations, the benchmark for each quality measure (except the 30-day All-Cause Hospital Readmission measure) is the case-weighted national mean performance rate during 2015 among all TINs in the measure's peer group. The benchmark for the 30-day All-Cause Hospital Readmission measure is the case-weighted national mean performance rate during 2015 among all TINs and ACOs in the measure's peer group. For each quality measure (except the 30-day All-Cause Hospital Readmission measure), the peer group is defined as all TINs nationwide that had at least 20 eligible cases for the measure. For the 30-day All-Cause Hospital Readmission measure, the peer group is defined as all TINs nationwide with 10 or more eligible professionals that had at least 200 eligible cases and all ACOs in the Shared Savings Program with at least 1 eligible case. In addition, for the 2018 Value Modifier calculations, PQRS measures that can be reported as Electronic Clinical Quality Measures (eCQM) have separate benchmarks from non-eCQM versions of the measures.

The benchmark for each cost measure is the case-weighted national mean cost during 2016 among all TINs in the measure's peer group. For each cost measure (except the MSPB measure), the peer group is defined as all TINs nationwide that had at least 20 eligible cases for the measure. For the MSPB measure, the peer group is defined as all TINs nationwide that had at least 125 eligible episodes.

For case weights, the performance of each TIN in the peer group receives a weight equal to the number of eligible cases the TIN had for the specific measure. For additional information on the quality benchmarks used in the calculation of the 2018 Value Modifier, please see the document entitled "Benchmarks for Measures Included in the Performance Year 2016 Quality and Resource Use Reports," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/PY2016-Prior-Year-Benchmarks.pdf.

How are domain scores calculated?

Domain scores are calculated as the equally-weighted mean of the TIN's standardized measure scores within the domain. Domain scores only include measures for which benchmarks are available and for which the TIN has the required minimum number of eligible cases. A domain score is not calculated if the TIN does not have the required minimum number of eligible cases for at least one measure with a benchmark in that domain.

How are composite scores calculated?

The first step in calculating each Quality or Cost Composite Score involves calculating the equally-weighted mean of the TIN's domain performance scores, if the TIN has a score for at least one domain included in the composite. An overall composite score is not calculated for TINs that do not have at least one domain score included in the composite. For both Quality and Cost Composite Scores, each TIN's mean domain score is then standardized to generate a distribution of mean domain scores centered at 0 and with a standard deviation of 1 by subtracting the mean of the peer group's mean domain scores from the TIN's mean domain score and dividing the result by the standard deviation of the peer group's mean domain scores. The standardized mean quality domain score is the TIN's Quality Composite Score, and the standardized mean cost domain score is the TIN's Cost Composite Score.

For all TINs subject to the 2018 Value Modifier, the peer group for the Quality Composite Score includes all TINs subject to the 2018 Value Modifier for which a Quality Composite Score is calculated and used to determine the 2018 Value Modifier. For all TINs subject to the Value Modifier, the peer group for the Cost Composite Score includes all TINs subject to the 2018 Value Modifier for which a Cost Composite Score could be calculated, with the exception of TINs that participated in a Shared Savings Program ACO in 2016. This enables TINs subject to the Value Modifier to be compared at the composite level to other TINs subject to the Value Modifier.

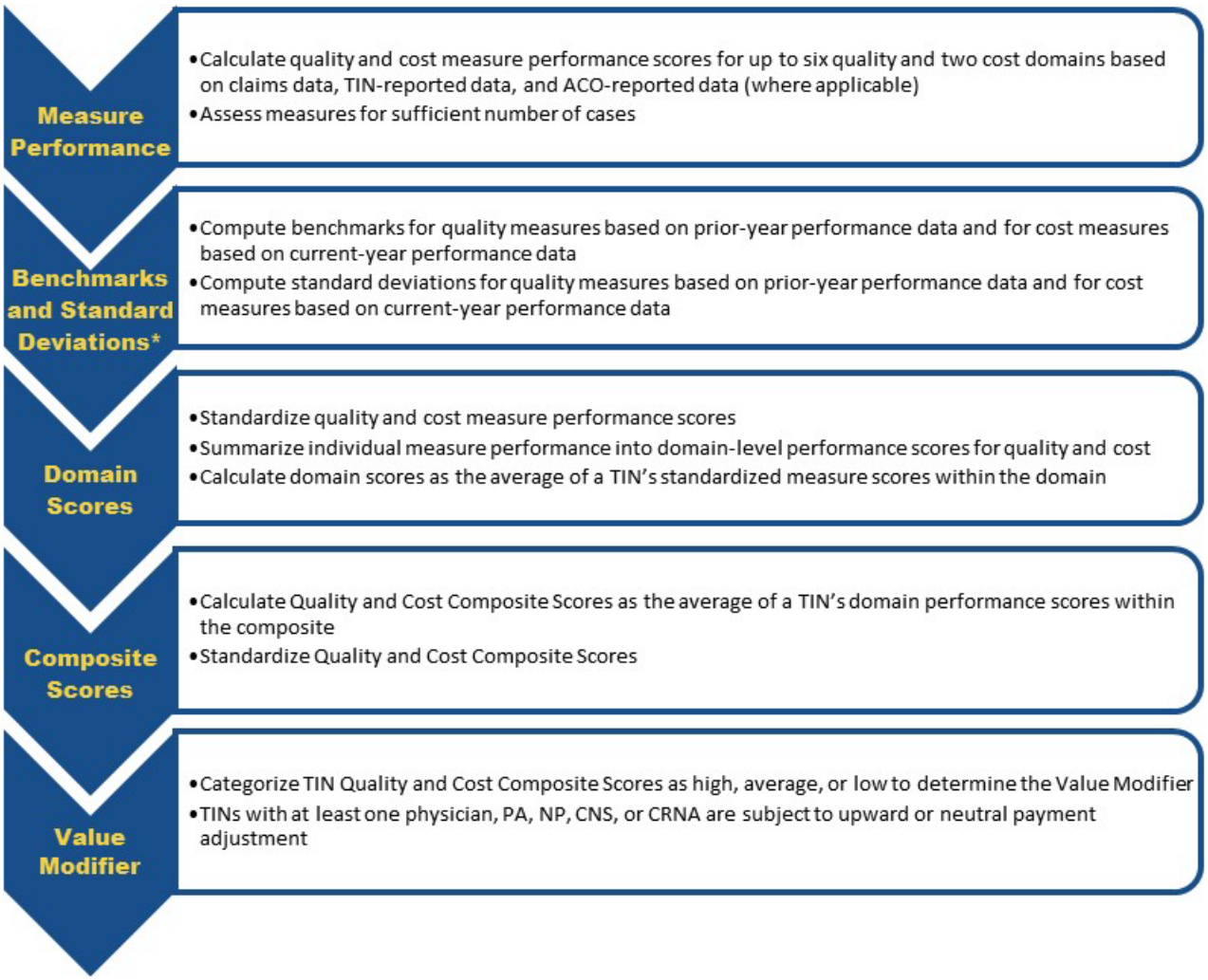
For additional information on the calculation of Quality and Cost Composite Scores, please see the responses to FAQ numbers 8 and 9 in Section C of the document entitled "Questions and Answers about the 2016 Quality and Resource Use Reports and the 2018 Value Modifier," available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-FAQs-QRUR.pdf.

How are Value Modifier adjustment categories determined?

For Category 1 TINs, CMS uses the Quality and Cost Composite Scores to determine whether TINs receive an upward or neutral payment adjustment and the magnitude of the adjustment through quality-tiering. To be considered either High Quality or Low Quality, a TIN's Quality Composite Score must be at least one standard deviation above or below the mean Quality Composite Score for the peer group and must be statistically significantly different from the mean Quality Composite Score for the peer group. Similarly, to be considered either High Cost or Low Cost, a TIN's Cost Composite Score must be at least one standard deviation above or below the mean Cost Composite Score for the peer group and must be statistically significantly different from the mean Cost Composite Score for the peer group. If the TIN's Quality or Cost Composite Score is within one standard deviation of the mean composite score for the peer group or is not statistically significantly different, then the TIN's performance is designated as average.

Figure 1 summarizes the process for determining each TIN's Value Modifier.

Figure 1. Methodology for Determining the 2018 Value Modifier for Category 1 TINs



*The performance rates of TINs with fewer than the required minimum number of eligible cases for a given cost or quality measure are excluded from the calculation of the benchmark for the measure.

Calculating a Value Modifier payment adjustment: An example

Below is a hypothetical example of how the 2018 Value Modifier payment adjustment would be calculated for a TIN with 10 or more eligible professionals that includes at least one physician and that does not treat high-risk beneficiaries (based on mean CMS-HCC risk scores).

Table 5 illustrates the calculation of a Cost Composite Score. The Cost Composite consists of two equally-weighted domains: (1) Per Capita Costs for All Attributed Beneficiaries and (2) Per Capita Costs for Beneficiaries with Specific Conditions. The former domain includes two measures: Per Capita Costs for All Attributed Beneficiaries and MSPB. The latter domain includes four condition-specific measures that summarize per capita costs for beneficiaries with the following chronic conditions: diabetes, chronic obstructive pulmonary disease (COPD), coronary artery disease (CAD), and heart failure.

As described above, we begin by computing standardized scores for each of the six measures within the Cost Composite. These are calculated by subtracting the measure's benchmark cost for the peer group (column C in **Table 5**) from the TIN's risk-adjusted per capita cost (column B) and dividing by the peer group's benchmark cost standard deviation (column D). The result is the standardized score for the individual cost measure (column E). For example, in **Table 5**, the TIN's Per Capita Costs for All Attributed Beneficiaries (row 1) is $17,795, the benchmark is $10,370, and the standard deviation is $1,864. Therefore, the standardized score for this measure is ($17,795 – $10,370) / $1,864 = 3.98. The TIN's Medicare Spending per Beneficiary (row 2) is $10,244, the benchmark is $8,975, and the standard deviation is $1,234. Therefore, the standardized score for this measure is ($10,244 - $8,975) / $1,234 = 1.03. The domain score for the Per Capita Costs for All Attributed Beneficiaries Domain (row 3) is then the mean of the two measure scores: (3.98 + 1.03) / 2 = 2.51.

The second domain score for Per Capita Costs for Beneficiaries with Specific Conditions is the mean of the standardized scores for the diabetes (row 4) and heart failure (row 7) measures. Note that the COPD and CAD measures (rows 5 and 6, respectively) are not included (column F) because there are fewer than 20 eligible cases for each measure (column A). Therefore, the domain score is (4.64 + 0.72) / 2 = 2.68 (row 8).

With each of the two domain scores calculated (rows 3 and 8, column E), the mean cost domain score for the TIN may now be computed as (2.51 + 2.68) / 2 = 2.60 (row 9). The TIN's peer group for the Cost Composite Score is all TINs with one or more eligible professionals that are subject to the Value Modifier and for which a mean domain score can be computed. The final step in calculating the TIN's Cost Composite Score is to standardize its mean cost domain score by subtracting the peer group's mean of the mean cost domain score (0.16, row 10, column C) from the TIN's mean cost domain score (2.60, row 9) and dividing by the standard deviation of mean cost domain scores within the peer group (2.96, row 10, column D), yielding a standardized Cost Composite Score of 0.82 (row 11). A Cost Composite Score of 0.82 means that the TIN's Cost Composite Score is 0.82 standard deviations higher than the mean Cost Composite Score for the TIN's peer group, reflecting the TIN's higher risk-adjusted costs across the individual performance measures. To be considered either a high or low performer relative to its peers on the Cost Composite Score, a TIN's Cost Composite Score must be at least one standard deviation above or below the mean Cost Composite Score for the peer group and must be statistically significantly different from the mean Cost Composite Score for the peer group. In this example, the TIN's Cost Composite Score of 0.82 is not at least one standard deviation above the mean Cost Composite Score for the peer group and is not statistically significantly different from the mean;[4] therefore the TIN's cost performance would be designated as average.

The computation of the Quality Composite Score is analogous to the calculation of the Cost Composite Score, differing only in the specific measures and domains that constitute the composite. For this example, let's assume the TIN's Quality Composite Score is 1.67, and that 1.67 is statistically significantly different from the mean. As a result, this TIN's quality performance would be designated as High Quality.

[4] Computations related to statistical significance testing are not shown.

Given that the TIN is categorized as High Quality and Average Cost in this example, physicians, PAs, NPs, CNSs, and CRNAs billing under the TIN would receive an upward Medicare PFS payment adjustment of +1.0 times the AF in 2018.

Table 5. Example Cost Composite Score Computation

		TIN's number of eligible cases (A)	TIN's risk-adjusted cost (B)	Benchmark (mean) (C)	Standard deviation (D)	Standardized score (E)	Included in domain score (F)
(1)	Per Capita Costs for All Attributed Beneficiaries	207	$17,795	$10,370	$1,864	3.98	Yes
(2)	MSPB	132	$10,244	$8,975	$1,234	1.03	Yes
(3)	Domain Score: Per Capita Costs for All Attributed Beneficiaries (from Rows 1 - 2)					2.51	
(4)	Per Capita Costs for Beneficiaries with Diabetes	84	$28,153	$14,946	$2,848	4.64	Yes
(5)	Per Capita Costs for Beneficiaries with COPD	18	$26,240	$24,270	$4,934	0.40	No
(6)	Per Capita Costs for Beneficiaries with CAD	4	$22,140	$17,333	$3,384	1.42	No
(7)	Per Capita Costs for Beneficiaries with Heart Failure	54	$30,157	$26,190	$5,537	0.72	Yes
(8)	Domain Score: Per Capita Costs for Beneficiaries with Specific Conditions (from Rows 4 – 7)					2.68	
(9)	Mean Cost Domain Score					2.60	
(10)	Peer Group Mean & S.D. of Mean Cost Domain Score (TINs with 1+ eligible professionals)			0.16	2.96		
(11)	Standardized Cost Composite Score					0.82	

Where can TINs find their 2018 Value Modifier and their Quality and Cost Composite Scores?

In September 2017, CMS will make the 2016 Annual Quality and Resource Use Reports (QRURs) available to every group practice and solo practitioner nationwide. Groups and solo practitioners will be identified in the QRURs by their TIN. The 2016 Annual QRURs will show how TINs performed in 2016 on the quality and cost measures used to calculate the 2018 Value Modifier. For physicians, PAs, NPs, CNSs, and CRNAs in TINs that are subject to the 2018 Value Modifier, the QRUR will show how the Value Modifier will apply to payments under the Medicare PFS for physicians, PAs, NPs, CNSs, and CRNAs who bill under the TIN in 2018. For TINs that are subject to the 2018 Value Modifier, CMS established an informal review period to request a correction of a perceived error in their 2018 Value Modifier calculation. The informal review period will last for 60 days after the release of the 2016 Annual QRURs. Authorized representatives of TINs can access the 2016 Annual QRURs at https://portal.cms.gov using an Enterprise Identity Data Management (EIDM) account with the correct role. For more information on obtaining an EIDM account with the correct role and how to access the 2016 Annual QRURs, please visit the How to Obtain a QRUR website at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Obtain-2013-QRUR.html.

Additional information about the 2018 Value Modifier and 2016 Annual QRURs, how to submit an informal review request, and the deadline for submitting an informal review, is available on the 2016 QRUR and 2018 Value Modifier website at http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html.