Quality Rating System: Rating Methodology for 2015

October 2015

Table of Contents

List of Exhibits

1. Introduction

This document describes the final Quality Rating System (QRS) rating methodology used by the Centers for Medicare & Medicaid Services (CMS) to calculate quality ratings based on the measure data submitted for the QRS 2015 beta test. This document is intended to provide details about the rating methodology to allow Qualified Health Plan (QHP) issuers to understand the QRS ratings assigned to each of their reporting units.[1] QHP issuers will be able to access their respective QRS ratings via the QRS preview period to take place in the Health Insurance Oversight System (HIOS)-Marketplace Quality Module (MQM) system beginning October 5, 2015.[2]

This document is an update to the anticipated rating methodology that was described in the *2015 Beta Test for the Quality Rating System and Qualified Health Plan Enrollee Experience Survey: Technical Guidance for 2015* (2015 Beta Test Guidance).[3] This guidance addressed requirements for the 2015 beta test, which included data submission in the 2015 calendar year for ratings to be calculated in summer/fall 2015. For the 2015 beta test, CMS made certain rating methodology decisions after measure data was submitted and analyzed. This document includes those decisions and other refinements based on CMS' analysis of the data.

Since 2015 is the beta test year, CMS will provide only QRS ratings[4] to each respective QHP issuer during the preview period. The purpose of the preview period is largely to test the ability for QHP issuers to access their QRS results in the MQM, rather than to allow QHP issuers to validate the accuracy of the ratings. CMS intends to make refinements to the QRS program based on the full beta test process (from data submission through the preview period) and anticipates sharing additional ratings information during the preview period in future years. This document does not include all information needed for QHP issuers to replicate the calculations. This document does not include measure benchmarks (e.g., median, min/max), distributions across star ratings, or national percentile ranks. In addition, QRS scores will not be shared with QHP issuers at this time.

By early 2016, CMS will release 2015 proof sheets to QHP issuers. These proof sheets will contain calculations for each step of the methodology, from raw measure scores all the way up through the global score and rating. Each proof sheet will be specific to a given reporting unit. CMS will also release measure benchmark data that will allow QHP issuers to compare the raw measure values for their respective reporting units to Marketplace measure data.

[1] The reporting unit for the QRS is defined by the unique state-product type for each QHP issuer. Product types include EPOs, HMOs, POSs, and PPOs.

[2] CMS will not display 2015 beta test results (e.g., QRS scores and ratings and QHP Enrollee Survey results) publically for QHPs operating in Federally-facilitated Marketplaces (FFMs) and State-Based Marketplaces (SBMs) that use HealthCare.gov. SBMs may display 2015 beta test results with appropriate disclaimers. CMS will not release public use files containing 2015 beta test results.

[3] For additional information on the QRS, including the 2015 Beta Test Guidance, please see the CMS Marketplace Quality Initiatives website at https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/Health-Insurance-Marketplace-Quality-Initiatives.html.

[4] Ratings on a 5-star scale are provided for all components of the QRS hierarchy (composites, domains, summary indicators, and global result).

1.1 Summary of Changes

The following summarizes the changes made to the rating methodology since the 2015 Beta Test Guidance was published in September 2014.

During the 2015 beta test, CMS used Marketplace data to inform remaining methodological decisions, including minimum denominator size, cut points, and the weighting approach associated with the QRS survey measure indicators. Additionally, CMS conducted confirmatory testing and comparative analyses on the 2015 beta test results to validate the overall rating methodology (and associated hierarchy). All analyses conducted and resulting decisions integrate CMS policy priorities, as well as QRS TEP and public comment feedback.

The changes summarized below are reflected in the detailed sections to follow. All other changes made to the description of the methodology reflect efforts to improve clarity.

- **Defined minimum denominator size for scoring measures (see Section 2.4, Step 1):** CMS collected data from QHP issuers without defining a minimum denominator size. For the 2015 rating methodology, CMS will score plan performance using the industry-accepted minimum denominator sizes for valid measure results of 30 for QRS clinical measures and 100 for QRS survey measures. A reporting unit that does not meet the minimum denominator size will not receive a valid measure result (i.e., the measure will have its reported rate converted to a missing observation) and will not be included in the calculation of its respective composite.
- **Clarification to the scoring approach for Chlamydia Screening in Women (see Section 2.4, Step 1):** The 2015 Beta Test Guidance Appendix D included the Chlamydia Screening in Women measure on the list of measures with indicators that would be weighted for scoring. The percentage of women is age-stratified (16-20 and 21-24) for this measure, but does not consist of indicators that measure distinct aspects of care; therefore, the indicators were not weighted before scoring. The QRS rating methodology will not weight the age-stratified rates before measure scoring.
- **Defined method for handling tied measure scores (see Section 2.4, Step 2):** As stated in the 2015 Beta Test Guidance, CMS will standardize all calculable measure scores by calculating percentile ranks (based on one national, all-product reference group). For example, across all products and Marketplaces, CMS will take all rates for the Cervical Cancer screening measure and rank them using the distribution of values. A QHP issuer's reporting unit (e.g., an HMO in New York) with a rate that corresponds to the 50th percentile among all product types receives a Cervical Cancer Screening score of 50. Based on analysis of 2015 beta test data, CMS determined that if reporting units have tied measure rates (i.e., they report identical values for the measure rate), they would be assigned the value of the average rank.
- **Revised scoring rules (see Section 2.4, Step 5 and 6):** Based on the analysis of 2015 beta test data, CMS determined that a revision to the scoring rules was appropriate. CMS will score the global result and summary indicators using the half-scale rule, rather than the full-scale rule. Additionally, reporting units must have a calculable score for the Clinical Quality Management summary indicator for a global score to be calculated.
- **Defined cut points used for converting scores to ratings (see Section 2.4, Step 7):** For the 2015 rating methodology, CMS used a data-driven approach to establish cut points.

Cut points are derived from the actual distribution of Marketplace data using a clustering methodology. CMS will use a clustering analysis to take scores from each reporting unit and group them together based on similarity across five clusters. Data-driven cut points are different at each level of the hierarchy as the cluster analysis is conducted for each component of the hierarchy from composites through the global result.

2. QRS Rating Methodology

This section describes how CMS calculated 2015 beta test QRS ratings based on the QRS clinical measure and QHP Enrollee Survey response data submitted in 2015 (for measurement year 2014).

2.1 QRS Measures and Scoring

For the 2015 beta test, QHP issuers were required to collect and submit validated data for 29 of the 43 measures in the QRS measure set for each of their eligible reporting units. These 29 measures are those that require only one year of data per the continuous enrollment criteria as defined in the measure technical specifications. CMS used 28 of the 29 QRS measures to calculate QRS scores and ratings as the Relative Resource Use measure was excluded from scoring for 2015.

Note that, in communicating total measure counts, the above totals count a measure based on the perspective of the measure steward. If counting based on the number of measures in the QRS hierarchy, there are 31 measures used in scoring (rather than 28) and 46 measures collected in total (rather than 43). The difference of three in this count comes from two factors. First, Prenatal and Postpartum Care (NQF #1517) is split into two distinct measures for the QRS hierarchy (and, therefore, QRS scoring): Timeliness of Prenatal Care and Postpartum Care. Similarly, Proportion of Days Covered (NQF #0541) is split into three distinct measures: Diabetes All Class, Renin Angiotensin System (RAS) Antagonists, and Statins.

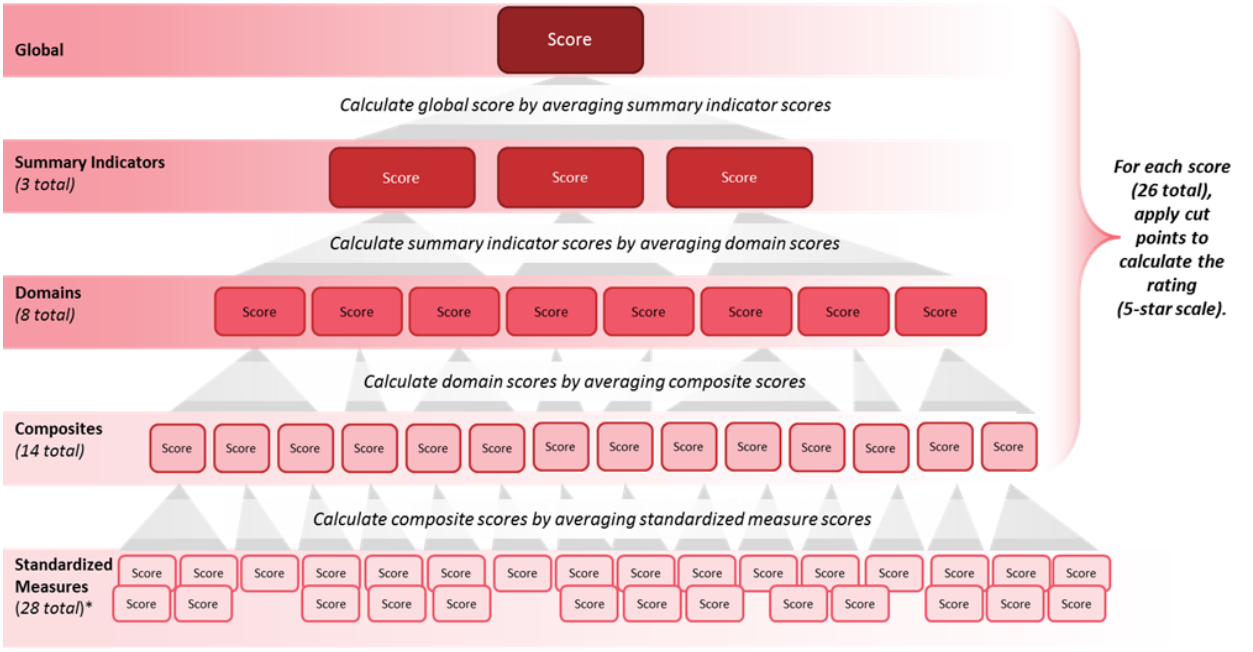
2.2 QRS Hierarchy

The QRS measures are organized into a hierarchical structure (the QRS hierarchy) designed to make the QRS scores and ratings more understandable (see Appendix A). The measures are the building blocks of the hierarchical structure and are grouped into hierarchy components (composites, domains, summary indicators) that are used to form a single global result.

2.3 Overview of Process for Calculating QRS Scores and Ratings

Exhibit 1 is a visual depiction of how the QRS rating methodology converts measure scores into higher level QRS hierarchy component scores and ratings. Component scores are calculated by averaging scores of components in a lower level of the hierarchy. Thus, the global score is an average of summary indicator scores, summary indicator scores are averages of associated domain scores, and domain scores are averages of associated composite scores.

Exhibit 1. Overview of QRS Rating Methodology



* One measure, Relative Resource Use for People with Diabetes (Inpatient Facility) (NQF #1557), will be collected, but will not be included in QRS scores or ratings.

2.4 Scoring Process in Detail

The information described below reflects the finalized QRS rating methodology used to calculate QRS scores and ratings for the 2015 beta test. Exhibit 2 outlines the process for calculating QRS scores and ratings. Each step is then described in greater detail.

Exhibit 2. Steps for Calculating QRS Scores and Ratings

Step	Sub-steps
Step 1. Prepare Data for Scoring	▪ *Combine the measure's indicator values to create the measure score.* For measures with more than one indicator, average the measure's indicators to create the measure score. ▪ *Determine if the measure denominator size is sufficient for including the measure in scoring*. The minimum denominator size is 30 observations for clinical measures and 100 for survey measures.
Step 2. Standardize Measure Scores	▪ *Standardize the measure scores.* Using a national reference group based on calculable QHP issuer product performance rates (from submitted data), standardize each measure score by assigning a percentile rank (using the mean for any ties).
Step 3. Calculate Composite Scores	▪ *Determine if the score can be calculated.* Apply the half-scale rule, meaning the composite score can be calculated only if at least half of the associated measures have a score. ▪ *Calculate the score.* Average available measure scores.
Step 4. Calculate Domain Scores	▪ *Determine if the score can be calculated.* Apply the half-scale rule, meaning the domain score can be calculated only if at least half of the associated composites have a score. ▪ *Calculate the score.* Average available composite scores.
Step 5. Calculate Summary Indicator Scores	▪ *Determine if the score can be calculated.* Apply the half-scale rule, meaning the summary indicator score can be calculated only if at least half of the associated domains have a score. ▪ *Calculate the score.* Average available domain scores.

Step	Sub-steps
Step 6. Calculate Global Score	▪ *Determine if the score can be calculated*. The global score can be calculated only if the Clinical Quality Management summary indicator has a score and at least one of the other two summary indicators has a score. ▪ *Calculate the score*. Average available summary indicator scores.
Step 7. Convert scores to ratings	▪ *Identify cut point values for each component using cluster analysis.* ▪ *Convert scores to ratings*. Convert each composite, domain, summary indicator, and global score into a rating using score value cut points that delineate rating categories of 1, 2, 3, 4, and 5.

STEP 1: PREPARE DATA FOR SCORING

A measure cannot be scored if the reporting unit received a Benefit Not Offered (NB) or Not Reported (NR) audit designation for that measure.

For the measure data that is available, prior to scoring, CMS will average each measure's indicators (for those measures with two or more indicators or rates), and then determine whether each measure's results can be included in QRS scoring, based on the measure's denominator size.[5] The two steps include the following details:

1. **Combine the measure's indicator values to create the measure score.**

   Several QRS measures are composed of two or more indicators (or QHP Enrollee Survey questions, in the case of QRS survey measures). For QRS clinical measures that are composed of multiple indicators (Exhibit 3), CMS will use a weighted average method (see equation below Exhibit 3) to average each measure's individual indicator rates and calculate a measure score. The "weights" placed on the measure's indicators are based on the respective denominator sizes. Indicators with larger denominators will contribute more to the measure's score than indicators with smaller denominators.

Exhibit 3. QRS Measures with Multiple Indicators with Weighted Average Scores

Measure *(* not required for reporting in 2015)*	Indicator	Weighting Approach
Annual Monitoring for Patients on Persistent Medications	Angiotensin Converting Enzyme (ACE) inhibitors or Angiotensin Receptor Blockers (ARBs) Digoxin Diuretics	Three indicators combined as weighted averages to create the measure score
Antidepressant Medication Management*	Effective Acute Phase Treatment Effective Continuation Phase Treatment	Two indicators combined as weighted averages to create the measure score
Follow-Up Care for Children Prescribed ADHD Medication*	Initiation Phase Continuation and Maintenance (C&M) Phase	Two indicators combined as weighted averages to create the measure score

[5] Note that for the 2015 beta test year, CMS rounded both QRS clinical measure and QRS survey measure data to two decimal places upon receipt. CMS did not round data when proceeding with data scoring.

Measure *(* not required for reporting in 2015)*	Indicator	Weighting Approach
Initiation and Engagement of Alcohol and Other Drug (AOD) Dependence	Initiation of AOD Treatment Engagement of AOD Treatment	Two indicators combined as weighted averages to create the measure score
Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	Body Mass Index (BMI) Percentile Documentation Counseling for Nutrition Counseling for Physical Activity	Three indicators combined as weighted averages to create the measure score

The weighted average equation is as follows:

$$X = \frac{\sum_1^i n_i * x_i}{\sum_1^i n_i}$$

where X is the final measure score (i.e., the weighted average), x_i is the indicator score, and n_i is the indicator denominator. The overall denominator is the sum of all the indicator denominators. Exhibit 4 shows an example of this weighted average calculation for a measure score.

Exhibit 4. Example of Weighted Average of Indicator Scores

Name of Indicator	Example Denominator Size	Example Score
ACE Inhibitors or ARBs (Indicator)	100	0.40
Digoxin (Indicator)	200	0.60
Diuretics (Indicator)	150	0.50
Annual Monitoring for Patients on Persistent Medications (Measure)	**450**	**0.52**

$$\textbf{Annual Monitoring for Patients on Persistent Medications} = \frac{\begin{array}{c}((\textbf{ACE Inhibitors or ARBs} * \textbf{Denominator}) + \\ + (\textbf{Digoxin} * \textbf{Denominator}) + (\textbf{Diuretics} * \textbf{Denominator}))\end{array}}{\textbf{Total Denominator}}$$

$$= \frac{((0.40 * 100) + (0.60 * 200) + (0.50 * 150))}{450} = \frac{235}{450} = 0.52$$

Several of the QRS survey measures are also composed of two or more indicators (or QHP Enrollee Survey questions, in this case). For these Consumer Assessment of Healthcare Providers and Systems (CAHPS)®-based measures, questions that assess similar topics are grouped together to form a single QRS measure to simplify the interpretation of the data and enhance the reliability of the results. In keeping with this CAHPS® framework, a number of QRS measures that are based on the QHP Enrollee Survey response data will be formed by combining two or more survey indicators (e.g., Access to Care measure). The individual indicator values will be averaged to create the measure score.

For QRS survey measures, calculation of scores from the QHP Enrollee Survey will be completed using the CAHPS Analysis Program ("CAHPS Macro"), which was developed by

the CAHPS Consortium under the auspices of the Agency for Healthcare Research and Quality. Based on 2015 beta test data, CMS determined there will be no weighting used for QRS survey measure indicators. Additionally, case mix adjustment for QRS survey measures is done using the following variables: General Health Rating, Mental Health Rating, Chronic Conditions/Medications, Age, Education, Survey Language, Help with the Survey, and Survey Mode. For further information, see *Scoring Specifications for QRS Survey Measures Included in the 2015 QHP Enrollee Survey* at https://qhpcahps.cms.gov/.

2. Determine if the measure denominator size is sufficient for including the measure in scoring.

While QHP issuers will submit measure data to CMS regardless of denominator size, measures with an insufficient denominator size will be excluded from QRS scoring. QHP issuers that do not meet the minimum denominator size requirement for a measure (see Exhibit 5) will not receive a score for that measure (and will be assigned a Not Applicable [NA] measure result).

Exhibit 5. Minimum Denominator Size Required for Inclusion in QRS Scoring

Measure	Minimum Denominator Size Required for Inclusion in QRS Scoring
QRS Clinical Measure	30
QRS Survey Measure	100

For measures with multiple indicators, CMS determines if the minimum denominator size is met based on the maximum denominator size among the measure's indicators. For example, the Follow-up Care for Children Prescribed ADHD Medication measure has two indicators. If the Initiation Phase indicator's denominator is 50 enrollees, and the Continuation and Maintenance Phase indicator's denominator is 25 enrollees, CMS will reference the denominator size of 50 to determine whether the measure can be used for QRS scoring.

Exhibit 6 shows examples of how QRS scoring could be affected by observed denominator sizes in comparison to a minimum denominator size requirement of 30.

Exhibit 6. Example of Observed Denominator Size in Comparison to the QRS Clinical Measure Minimum Denominator Size Requirement

Measure	Measure's Observed Denominator Size	QRS Clinical Measure Minimum Denominator Size Required for Inclusion in QRS Scoring	Measure Included in QRS Scoring?
A	45	30	Yes
B	30	30	Yes
C	20	30	No
D	50 for indicator X 25 for indicator Y (assume the maximum denominator size of 50)	30	Yes
E	50 for indicator X 0 for indicator Y (assume the maximum denominator size of 50)	30	Yes

Measure	Measure's Observed Denominator Size	QRS Clinical Measure Minimum Denominator Size Required for Inclusion in QRS Scoring	Measure Included in QRS Scoring?
F	25 for indicator X 25 for indicator Y (assume the maximum denominator size of 25)	30	No

STEP 2: STANDARDIZE MEASURE SCORES

CMS will standardize measure scores by calculating national percentile ranks before calculating composite and higher-level QRS component scores. Percentile ranks will be based on one national, all-product reference group. For example, across all products (i.e., EPOs, HMOs, POSs, and PPOs) and all Marketplaces, CMS will take all rates for the Cervical Cancer screening measure and rank them using the distribution of rate values. A QHP issuer's HMO product with a rate that corresponds to the 50th percentile among all product types receives a Cervical Cancer Screening score of 50.

If reporting units have tied measure rates the reporting unit is assigned the value of the average rank, as shown in Exhibit 7.

Exhibit 7. Handling Tied Values

Observation	Example Value	Rank
1	12345	1.0
2	**245**	**5.5**
3	**12**	**9.5**
4	2345	2.0
5	205	7.0
6	452	4.0
7	120	8.0
8	**12**	**9.5**
9	1555	3.0
10	**245**	**5.5**

CMS will use SAS PROC RANK with the percentile ranks ranging from 1 to 100 percentiles to standardize the measure rates. The code allows for as many percentile ranks allowed as there are reporting units (e.g., 1.5 percentile rank is valid). CMS will exclude measures that do not meet the minimum denominator criterion before calculating percentile ranks. This approach calculates the rank as n/ (N+1), where n is the reporting unit's position in the rank order and N is the number of reporting units with calculable data.

STEP 3: CALCULATE COMPOSITE SCORES

CMS calculates composites, like all other QRS components (i.e., domains, summary indicators, and global), using equally weighted score averages. CMS will calculate composite scores based on combinations of standardized QRS measure scores. The steps are as follows:

1. **Determine if the composite score can be calculated.** CMS will use a half-scale rule to determine if each composite score can be calculated. The half-scale rule indicates that only if at least half of the associated measures in the composite have a score, the composite can be calculated. Otherwise, the composite cannot be calculated and will not reflect a score. Note that when applying the half-scale rule for composite score calculation, CMS only considers measures that were required for reporting (see Appendix A for QRS hierarchy with measures not required for 2015 beta test reporting highlighted in grey).

Exhibit 8. Example Application of the Half-Scale Rule for One Composite

Measure	Score Available for Reporting Unit?
Adult BMI Assessment	No, measure not required for reporting for 2015 beta test
Chlamydia Screening in Women	Yes, reported score
Aspirin Use and Discussion	No, measure not required for reporting for 2015 beta test
Flu Vaccinations for Adults Ages 18-64	Yes, reported score
Medical Assistance With Smoking and Tobacco Use Cessation	No, measure not required for reporting for 2015 beta test
Can the Staying Health Adult Composite be Calculated?	**Yes, because at least one of the two available measures (Chlamydia Screening and Flu Vaccinations) in this composite can be scored.**

2. **Calculate the composite score.** CMS will average the associated and available measure scores with equal weighting. Exhibit 9 includes an example of how the Cardiovascular Care composite will be calculated from three measure scores.

Exhibit 9. Example Composite Score Calculation

Measure	Example Score (Standardized Measure Percentile Rank)
Controlling High Blood Pressure	30
Proportion of Days Covered (RAS Antagonists)	90
Proportion of Days Covered (Statins)	60
Cardiovascular Care Composite Score (Average of Available Measure Scores, Not a Percentile Rank)	**60**

$$\textbf{Cardiovascular Care} = \frac{(\textbf{Controlling High Blood Pressure} + \textbf{Proportion of Days Covered (RAS Antagonists)} + \textbf{Proportion of Days Covered (Statins)})}{\textbf{3}}$$

$$= \frac{(\textbf{30} + \textbf{90} + \textbf{60})}{\textbf{3}} = \textbf{60}$$

Composite scores (and all component scores) are averages of percentile ranks; the ranking of the values only occurs once at the measure level. A composite score of 60, for example in Exhibit 9, means "this QHP has an average percentile rank of 60 based on the measure scores

for this composite." It does not mean "this QHP is at the 60th percentile rank for this composite."

STEP 4: CALCULATE DOMAIN SCORES

CMS will calculate domain scores and ratings based on equally weighted composite score averages. CMS will take similar types of steps used with composite calculations. The steps are as follows:

1. **Determine if the domain score can be calculated.** CMS will use a *half-scale rule* to determine if each domain score can be calculated. The half-scale rule indicates that only if half or more of the associated composites have a score, the domain score can be calculated. Otherwise, the domain score cannot be calculated and will not reflect a score.

2. **Calculate the domain score.** CMS will average the available composite scores using equal weighting as shown in Exhibit 10.

Exhibit 10. Example Domain Score Calculation

Composite	Example Score (Average of Available Measure Scores)
Checking for Cancer	20
Maternal Health	40
Staying Healthy Adult	80
Staying Healthy Child	60
Prevention Domain Score (Average of Available Composite Scores, Not a Percentile Rank)	**50**

$$\textbf{Prevention} = \frac{\textbf{Checking for Cancer} + \textbf{Maternal Health} + \textbf{Staying Healthy Adult} + \textbf{Staying Healthy Child}}{\textbf{4}}$$

$$= \frac{\textbf{20} + \textbf{40} + \textbf{80} + \textbf{60}}{\textbf{4}} = \textbf{50}$$

STEP 5: CALCULATE SUMMARY INDICATOR SCORES AND RATINGS

CMS will calculate summary indicator scores and ratings based on equally weighted domain score averages. CMS will take similar types of steps used with domain calculations. The steps are as follows:

1. **Determine if the summary indicator score can be calculated.** CMS will use a half-scale rule to determine whether the summary indicator score can be calculated. The half-scale rule indicates that only if half or more of the associated domain scores for a summary indicator are present, the summary indicator score is calculated. Otherwise, the summary indicator score cannot be calculated and will not reflect a score.

2. **Calculate the summary indicator score.** CMS will average the available domain scores using equal weighting as shown in Exhibit 11.

Exhibit 11. Example Summary Indicator Score Calculation

Domain	Example Score (Average of Available Composite Scores)
Access	65
Care Coordination	50
Doctor and Care	35
Enrollee Experience Summary Indicator Score (Average of Available Domain Scores, Not a Percentile Rank)	**50**

$$\textbf{Enrollee Experience} = \frac{\textbf{Access} + \textbf{Care Coordination} + \textbf{Doctor and Care}}{\textbf{3}}$$

$$= \frac{\mathbf{65 + 50 + 35}}{\mathbf{3}} = \mathbf{50}$$

STEP 6: CALCULATE GLOBAL SCORE AND RATING

CMS will calculate the global score and rating based on equally weighted summary indicator score averages. CMS will take similar types of steps used with summary indicator calculations. The steps are as follows:

1. **Determine if the global score can be calculated.** CMS will calculate the global score for the reporting unit only if the Clinical Quality Management summary indicator has a score and at least one of the other two summary indicators has a score.

2. **Calculate the global score.** CMS will average the available summary indicator scores using equal weighting as shown in Exhibit 12.

Exhibit 12. Example Global Score Calculation

Summary Indicator	Example Score (Average of Available Domain Scores)
Clinical Quality Management	65
Enrollee Experience	35
Plan Efficiency, Affordability, and Management	50
Global Score (Average of Available Summary Indicator Scores, Not a Percentile Rank)	**50**

$$\textbf{Global Score} = \frac{\textbf{Clinical Quality Management} + \textbf{Enrollee Experience} + \textbf{Plan Efficiency, Affordability, and Management}}{\textbf{3}}$$

$$= \frac{\mathbf{65 + 35 + 50}}{\mathbf{3}} = \mathbf{50}$$

STEP 7: CONVERT SCORES TO RATINGS

1. **Identify cut point values.** CMS used cluster analysis (of the 2015 beta test data) to determine the score value of cut points for each component to create the rating categories (i.e., 26 independent clustering runs). See Exhibit 13 for 2015 cut points for each component of the QRS hierarchy. Cut points are not available (NA) for one component, Asthma Care, as this composite consists of one measure that was not required for reporting in 2015 (Medication Management for People With Asthma [75% of Treatment Period]).

Exhibit 13. 2015 Cut Points

Component Name	Component Level	Cut Points			
Global	Global	31	45	57	69
Clinical Quality Management	Summary Indicator	21	48	63	83
Enrollee Experience	Summary Indicator	15	32	53	77
Plan Efficiency, Affordability, and Management	Summary indicator	18	37	61	78
Clinical Effectiveness	Domain	24	43	68	83
Patient Safety	Domain	20	45	60	82
Prevention	Domain	18	39	62	80
Access	Domain	22	53	68	89
Care Coordination	Domain	19	33	52	71
Doctor and Care	Domain	29	55	68	91
Efficiency and Affordability	Domain	18	46	62	79
Plan Service	Domain	22	35	65	80
Asthma Care	Composite	NA	NA	NA	NA
Behavioral Health	Composite	15	34	65	87
Cardiovascular Care	Composite	16	28	47	72
Diabetes Care	Composite	25	38	59	77
Patient Safety	Composite	20	45	60	82
Checking for Cancer	Composite	21	43	60	83
Maternal Health	Composite	29	45	61	77
Staying Healthy Adult	Composite	15	35	63	79
Staying Health Child	Composite	22	46	65	85
Access to Care	Composite	22	53	68	89

Component Name	Component Level	Cut Points			
Care Coordination	Composite	19	33	52	71
Doctor and Care	Composite	29	55	68	91
Efficient Care	Composite	18	46	62	79
Enrollee Experience with Health Plan	Composite	22	35	65	80

2. **Converts scores to ratings.** CMS will convert each score (for composites, domains, summary indicators, and global score) into a rating using the cut points that delineate rating categories of 1, 2, 3, 4, and 5 stars. Scores fall into one of the five categories created by the cut points. Exhibit 14 below shows an example of converting a global score to a global rating using global score cut points.

Exhibit 14. Conversion of a Global Score to a Global Rating

Cut Points	Categorical Rating
0 < Score < 31	1 ★
31≤ Score < 45	2 ★★
45 ≤ Score < 57	3 ★★★
57 ≤ Score < 69	4 ★★★★
69 ≤ Score	5 ★★★★★

Example: The global score of 50 in Exhibit 12 lies within the limits of the third category in Exhibit 14 (45 ≤ Score < 57) and converts to a 3-star rating (★★★).

Appendix A. QRS Hierarchy

Exhibit 15 illustrates the QRS hierarchy, which is the organization of measures into composites, domains, and summary indicators (and ultimately, a single global rating). The survey measures in the QRS measure set are noted with an asterisk (*). Shown in grey are measures that were not required for reporting for the 2015 beta test, per the continuous enrollment criteria required for these measures. Therefore, when CMS applies the half-scale rule to determine if higher-level component scores can be calculated, only measures that were required for reporting are considered.

Exhibit 15. QRS Hierarchy

QRS Summary Indicator	QRS Domain	QRS Composite	Measure Title (* indicates survey measure)	NQF ID
Clinical Quality Management	Clinical Effectiveness	Asthma Care	Medication Management for People With Asthma (75% of Treatment Period)	1799
		Behavioral Health	Antidepressant Medication Management	0105
			Follow-Up After Hospitalization for Mental Illness (7-Day Follow-Up)	0576
			Follow-Up Care for Children Prescribed ADHD Medication	0108
			Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	0004
		Cardiovascular Care	Controlling High Blood Pressure	0018
			Proportion of Days Covered (RAS Antagonists)	0541
			Proportion of Days Covered (Statins)	0541
		Diabetes Care	Comprehensive Diabetes Care: Eye Exam (Retinal) Performed	0055
			Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Control (<8.0%)	0575
			Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing	0057
			Comprehensive Diabetes Care: Medical Attention for Nephropathy	0062
			Proportion of Days Covered (Diabetes All Class)	0541
	Patient Safety	Patient Safety	Annual Monitoring for Patients on Persistent Medications	2371
			Plan All-Cause Readmissions	1768
	Prevention	Checking for Cancer	Breast Cancer Screening	2372
			Cervical Cancer Screening	0032
			Colorectal Cancer Screening	0034
		Maternal Health	Prenatal and Postpartum Care (Postpartum Care)	1517
			Prenatal and Postpartum Care (Timeliness of Prenatal Care)	1517
		Staying Healthy Adult	Adult BMI Assessment	Not Endorsed
			Chlamydia Screening in Women	0033
			Aspirin Use and Discussion*	Not Endorsed
			Flu Vaccinations for Adults Ages 18-64*	0039
			Medical Assistance With Smoking and Tobacco Use Cessation*	0027
		Staying Healthy Child	Annual Dental Visit	Not Endorsed
			Childhood Immunization Status (Combination 3)	0038
			Human Papillomavirus Vaccination for Female Adolescents	1959
			Immunizations for Adolescents (Combination 1)	1407
			Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	0024

QRS Summary Indicator	QRS Domain	QRS Composite	Measure Title (* indicates survey measure)	NQF ID
			Well-Child Visits in the First 15 Months of Life (Six or More Visits)	1392
			Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	1516
Enrollee Experience	Access	Access to Care	Access to Care*	Not Endorsed
	Care Coordination	Care Coordination	Care Coordination*	Not Endorsed
	Doctor and Care	Doctor and Care	Cultural Competence*	Not Endorsed
			Rating of All Health Care*	0006
			Rating of Personal Doctor*	0006
			Rating of Specialist*	0006
Plan Efficiency, Affordability, & Management	Efficiency & Affordability	Efficient Care	Appropriate Testing for Children With Pharyngitis	0002
			Appropriate Treatment for Children With Upper Respiratory Infection	0069
			Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis	0058
			Use of Imaging Studies for Low Back Pain	0052
	Plan Service	Enrollee Experience with Health Plan	Access to Information*	Not Endorsed
			Plan Administration*	Not Endorsed
			Rating of Health Plan*	0006
Collected but not included for purposes of QRS scores or ratings				
N/A	N/A	N/A	Relative Resource Use for People with Diabetes (Inpatient Facility)	1557

Appendix B. Glossary

Exhibit 16 includes definitions for key terms used in this document.

Exhibit 16. Glossary

Term	Definition
Average	A single value obtained by adding several quantities together and then dividing this total by the number of quantities.
Benefit Not Offered (NB)	Data validation result assigned for a measure if the QHP issuer did not offer the health benefit required by the measure.
Component	The QRS hierarchy includes the following components, listed from the lowest to the highest level of the hierarchy: composites, domains, summary indicators, and global. These components represent levels of scores and ratings. Scores for a component are composed of averages of scores of components in the lower level of the hierarchy. Thus, the global score is an average of summary indicator scores, summary indicator scores are averages of associated domain scores, and domain scores are averages of associated composite scores.
Composite	A component of the QRS hierarchy. A score for this component is created by a combination of two or more measures. A composite may also consist of a QRS survey measure that is comprised of multiple survey question items (e.g., Access to Care measure forms the Access to Care composite). An exception to the definition relates to the Asthma Care composite. This composite currently consists of one measure; however, it is considered a composite for purposes of scoring higher level components.
Cut point	A numeric score value that serves as a threshold to delineate a category, or level of performance, for each component. These levels of performance produce the 5-star rating scale.
Continuous score	An integer of the numerical value. Numbers do not represent ranks (relative position) or categories.
Data validation	A process by which an independent third party validates a QHP issuer's QRS measure data, including their data systems and processes. The data validator will verify completeness, accuracy, and comparability of the measure results. For 2016, CMS requires QHP issuers to contract with a Healthcare Effectiveness Data and Information Set (HEDIS)® Compliance Organization (National Committee for Quality Assurance [NCQA]-licensed). A HEDIS® Compliance Auditor, employed or contracted by that organization, will validate all QRS clinical measure results and the sampling frame for the QHP Enrollee Survey using the HEDIS Compliance Audit™ standards, policies, and procedures.
Domain	A component of the QRS hierarchy. A score for this component is created by combining scores from associated composites.
Exclusive Provider Organization (EPO)	A type of health insurance product that usually limits coverage to care from providers, or groups of providers, who have contracts with the health insurance issuer to be part of a network of participating providers. EPO enrollees will generally not be reimbursed or receive benefits for out-of-network services; however, some EPOs will provide partial reimbursement for emergency situations.
Federally-facilitated Marketplace (FFM)	The Marketplace model operated by HHS for individual and small group market coverage. For QHP issuers operating in the FFMs, CMS/CCIIO will display QHP quality rating information on HealthCare.gov alongside other QHP information to inform consumers.
Full-scale rule	A scoring rule that requires all component scores that form a higher level component score to be present for the component score to be calculated. For example, all summary indicator scores must be present to calculate the global score. This rule is intended for component scores to be comparable across reporting units.
Global	A component of the QRS hierarchy. A score or rating for this component is created by combining scores from summary indicators.

Term	Definition
Half-scale rule	A scoring rule that requires at least half of the component scores that form a higher level component score to be present for the component score to be calculated. For example, at least half of the composite scores must be present to calculate the domain score. This rule is intended for component scores to be comparable across reporting units.
Health Insurance Marketplace (Marketplace)	A resource in each state where qualified individuals, families, and small businesses can learn about their health insurance options; compare QHPs based on quality, costs, benefits, and other important features; choose a QHP; and enroll in coverage. In some states, the Marketplace is operated by the state. In others, it is operated by the federal government.
Health Maintenance Organization (HMO)	A type of health insurance product that usually limits coverage to care from providers who work for or contract with the HMO and generally will not cover out-of-network care except in an emergency. In this type of organization, enrollees must obtain all services from affiliated practitioners and must usually comply with a predefined authorization system to receive reimbursement.
HealthCare.gov	The consumer-facing website developed and operated by CMS/CCIIO that provides eligibility information, enrollment instructions, and QHP information for consumers looking to enroll in a health insurance plan through the FFMs. QRS ratings for QHP issuers operating in both the FFMs and states performing plan management functions will be displayed on HealthCare.gov to support consumers as they search for and enroll in a QHP.
Indicator	A rate that forms a measure. Some QRS measures have multiple indicators.
Measure	Rate variables that serve as the fundamental building blocks of the QRS hierarchy. Each measure is assigned to a composite and contributes to the scoring for the higher components of the hierarchy (i.e., domains, summary indicators, and global).
National Committee for Quality Assurance (NCQA)	The organization that developed and maintains the system through which QHP issuers will submit validated QRS clinical measure data to CMS, the Interactive Data Submission System (IDSS). NCQA is the measure steward for HEDIS® measures. NCQA also manages the HEDIS Compliance Audit™ program.
National Quality Forum (NQF)	NQF reviews, endorses, and recommends use of standardized health care performance measures. NQF issues an endorsement identification number (ID) for measures that they endorse. This ID is cited for QRS measures, where applicable.
Not Applicable (NA)	Data validation result assigned for a measure if the QHP issuer followed the specifications but the denominator was too small (i.e., fewer than 30) to report a valid rate. The QHP issuer did not have sufficient data to fulfill the continuous enrollment criteria for the measure.
Not Reported (NR)	Data validation result assigned for a measure if the QHP issuer chose not to report the measure rate.
Point of Service (POS)	A type of health insurance product modeled after an HMO, but with an opt-out option. In this type of product, enrollees may choose to receive services either within the organization's health care system (e.g., an in-network practitioner) or outside the organization's health care delivery system (e.g., an out-of-network practitioner). The level of benefits or reimbursement is generally determined by whether the enrollee uses in-network or out-of-network services.
Preferred Provider Organization (PPO)	A type of health insurance product that usually limits coverage to care from providers, or groups of providers, who have contracts with the health insurance issuer to be part of a network of participating providers. PPO enrollees may use providers outside of this network, but out-of-network services are usually covered at a reduced rate (e.g., reduced reimbursement percentages, higher deductibles, higher co-payments).
Product type	A discrete package of health insurance coverage benefits that a health insurance issuer offers using a particular product network type (e.g., HMO, PPO, EPO, POS) within a service area. This term refers to a specific contract of covered benefits, rather than a specific level of cost-sharing imposed.
QHP Enrollee Survey score	The average value for a measure from the QHP Enrollee Survey calculated for survey respondents in a given reporting unit. A survey score can be for a single assessment item or a combination of several items on a similar topic that are combined to form a single measure.

Term	Definition
QRS clinical measures	QRS measures calculated using clinical data from a QHP issuer's administrative and medical record sources.
QRS hierarchy	The organization of the QRS measures into information categories ranging from the most granular information (measure scores) to a global rating.
QRS rating methodology	The rules for combining measures and converting scores into performance ratings for the QRS.
QRS survey measures	QRS measures calculated using enrollee responses to a subset of specified questions in the QHP Enrollee Survey. For a crosswalk that maps each QRS survey measure to the relevant QHP Enrollee Survey item(s), refer to the CMS Health Insurance Marketplace Quality Initiatives website (https://qhpcahps.cms.gov/qhp-enrollee-survey-quality-rating-system)
Qualified Health Plan (QHP)	A health insurance plan that has, in effect, a certification that it meets the standards established by the Affordable Care Act and supporting regulation, issued or recognized by each Marketplace through which such plan is offered.
Qualified Health Plan Enrollee Experience Survey (QHP Enrollee Survey)	A survey tool developed, as directed by the Affordable Care Act section 1311 (c)(4), that includes a comprehensive set of questions related to enrollee experience with a QHP offered through the Marketplace. CMS will use enrollee response data for a specified subset of the questions to calculate the QRS survey measures.
Qualified Health Plan (QHP) issuer	A health insurance issuer that offers a QHP in accordance with a certification from a Marketplace, as defined by 45 CFR § 155.20. Each QHP issuer is defined by a separate federal Health Insurance Oversight (HIOS) Issuer ID. Each QHP issuer is defined by a state geographic unit.
2015 Quality Rating System Measure Technical Specifications	A document published on the CMS Health Insurance Marketplace Quality Initiatives website (http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/Health-Insurance-Marketplace-Quality-Initiatives.html) that includes detailed measure specifications and general guidelines for QRS measure data collection.
QHP quality rating information	Information that includes QRS scores and ratings, as well as QHP Enrollee Survey results.
Quality Rating System (QRS)	As directed by the Affordable Care Act section 1311 (c)(3), the Quality Rating System (QRS) is a system of rating QHPs offered through the Marketplace based on quality and price. The QHP quality rating information will be provided to individuals and employers to inform their selection of a QHP and will provide a system for monitoring of QHP quality by regulators.
QRS rating	Also referred to as "categorical rating" or "star rating." A value based on a score for QRS components (composites, domains, summary indicators, and global), which facilitates consumer understanding of QHP performance.
QRS score	A numerical value that indicates the level of QHP performance for QRS measures and hierarchy components (composites, domains, summary indicators, and global). For component scores, composite scores are averages of percentile ranks for a QHP, domain scores are averages of associated composite scores for a QHP, summary indicator scores are averages of associated domain scores for a QHP, and the global score is an average of summary indicator scores for a QHP.
Reference group	A population of reporting units that is defined based on specification of a geographical region and/or time period. A reporting unit's level of performance is its ranking among all reporting units within the defined group.
Reporting unit	The unit by which a QHP issuer groups their enrollees for purposes of QRS and QHP Enrollee Survey measure data collection and submission. The reporting unit for the QRS and QHP Enrollee Survey is defined by the unique state-product type for each QHP issuer.

Term	Definition
Standardized score	A rank value ranging from 0 to 99 that indicates the percentage of reporting scoring at and below the given raw measure score value. For a given measure, all values are ranked from lowest to highest with 99 representing the highest raw measure value among all reporting units nationally. Standardizing the measure scores allows for comparisons of a reporting unit relative to all other reporting units. Only QRS measure scores are standardized; component scores are not standardized.
States performing plan management functions in the FFMs	A hybrid Marketplace model in which a state operates plan management functions (and some also operate consumer assistance functions), while the remaining Marketplace functions are operated by HHS. For QHP issuers operating in states performing plan management functions in the FFMs, CMS/CCIIO will display QHP quality rating information on HealthCare.gov.
State-based Marketplace (SBM)	A Marketplace model in which a state operates its own Health Insurance Marketplace, for both the individual and small group markets. An SBM is responsible for certifying QHP issuers, overseeing QHP issuer compliance with federal Marketplace quality standards as a condition of certification, and, starting with the Open Enrollment Period for 2017 that begins in the fall of 2016, displaying QHP quality rating information to help consumers compare QHPs.
Summary indicator	A component of the QRS hierarchy. A score for this component is created by combining scores from associated domains.
Summary-level measure data	The level of QRS clinical measure data that QHP issuers will submit to CMS for each eligible reporting unit. Summary-level data elements are specified for each QRS clinical measure in the *2016 Quality Rating System Measure Technical Specifications*, and include such elements as eligible population (denominator), numerator, and the rate.
Unstandardized Score	The original, raw, measure score value.
Weighted average	An average that is calculated in which some data points (values) contribute more than others to the final average.