# Table of Contents

1. Document Purpose and Organization ................................................................. 1  
2. Background ........................................................................................................ 4  
3. QRS Preview via CMS’ Health Insurance Oversight System – Marketplace Quality Module ................................................................. 5  
  3.1 Instructions for Accessing QRS Ratings .......................................................... 6  
4. QRS Rating Methodology .................................................................................... 7  
  4.1 QRS Measure Set and Hierarchy ................................................................. 8  
  4.2 QRS Rating Methodology Overview .......................................................... 9  
  4.3 Process for Calculating QRS Scores and Ratings ..................................... 11  
Appendix A: Resources for Reviewing QHP Enrollee Survey Results ....................... 30  
Appendix B: Key to Invalid Codes in the 2022 QRS Proof Sheet .............................. 32  
Appendix C: Additional Details on the Contents of the 2022 QRS Proof Sheet ........... 33  
Appendix D: Crosswalk of 2022 QHP Enrollee Survey Questions Included in the QRS ............................. 34  

# List of Exhibits

Exhibit 1. QRS and QHP Enrollee Survey Documents Available for Preview on the HIOS-MQM Website ................................................................. 5  
Exhibit 2. QRS Hierarchy ...................................................................................... 8  
Exhibit 3. Overview of QRS Rating Methodology ............................................. 9  
Exhibit 4. Steps for Calculating QRS Scores and Ratings .................................. 10  
Exhibit 5. Audit Designations ............................................................................ 11  
Exhibit 6. Aggregation Methods for QRS Clinical Measures with Multiple Indicators ................................................................. 12  
Exhibit 7. Minimum Denominator Size Required for Inclusion in QRS Scoring ........ 22  
Exhibit 8. Example Denominator Size for QRS Clinical Measure Indicators .......... 22  
Exhibit 9. Example of Total Denominator Size Calculation for CAHPS®-Based QRS Survey Measure ................................................................. 23  
Exhibit 10. Example Clinical non-PCR and CAHPS-Adjusted Survey Measure Score after Benchmark Ratio Approach ............................................... 26  
Exhibit 11. Example PCR Score after Benchmark Ratio Approach ....................... 26  
Exhibit 12. Example AMO Measure Score after Benchmark Ratio Approach .......... 26  
Exhibit 13. Example Summary Indicator Score Calculation ............................... 27  
Exhibit 14. Application of the Explicit Weights to the Summary Indicator Score ....... 27  
Exhibit 15. Example Global Score Calculation .................................................. 28  
Exhibit 16. Reporting Unit Star Rating Decline Limit Example ............................ 29  
Exhibit 17. QHP Issuer Resources for Reviewing QHP Enrollee Survey Results ........ 30  
Exhibit 18. Key to Invalid Codes in the 2022 QRS Proof Sheet ............................. 32  
Exhibit 19. QRS Hierarchy Component Codes .................................................... 33  
Exhibit 20. Approach to Decimal Places and Rounding in Communicating QRS Results ................................................................. 33  
Exhibit 21. Crosswalk of 2022 QHP Enrollee Survey Questions Included in the QRS ............................. 34
1. Document Purpose and Organization

This 2022 Quality Rating System Proof Sheet User Guide (2022 QRS Proof Sheet User Guide) is intended to provide detail for Qualified Health Plan (QHP) issuers and state Exchange administrators regarding the methodology used to produce the Quality Rating System (QRS) scores and ratings as shown in the 2022 QRS Proof Sheets. The QRS Proof Sheets provide QHP issuers and state Exchange administrators with QRS ratings information for each ratings-eligible reporting unit (RU), throughout the entire QRS hierarchy, including data below measures (i.e., measure indicators, sub-measure indicators, and b-sub measure indicator values). This document is organized into the following sections:

- **Section 1:** Document purpose and organization.
- **Section 2:** Background on the QRS.
- **Section 3:** Information on the 2022 QRS preview period, including instructions for accessing the QRS Preview Report and QRS Proof Sheet. Information on the release of full QHP Enrollee Survey results is provided in Appendix A.
- **Section 4:** Detailed description of each step of the QRS rating methodology (i.e., the process for calculating QRS scores and ratings).
  - The key differences outlined in the text box below reflect changes to the QRS and QHP Enrollee Survey requirements between the 2021 and 2022 ratings year to align with the Quality Rating System and Qualified Health Plan Enrollee Experience Survey: Technical Guidance for 2022 (2022 QRS and QHP Enrollee Survey Technical Guidance).  

### Key Differences in QRS and QHP Enrollee Survey Requirements Between the 2021 Ratings Year and the 2022 Ratings Year

#### Measures Used for QRS Scoring:

In the Final 2021 Call Letter for the Quality Rating System (QRS) and Qualified Health Plan (QHP) Enrollee Survey (Final 2021 Call Letter), CMS announced the temporary removal of the Child and Adolescent Well-Care Visit measure from 2021 scoring due to significant changes to the population covered by the measure. CMS included the Child and Adolescent Well Care Visit measure in scoring for the 2022 ratings year.

CMS previously finalized the addition of the International Normalized Ratio Monitoring for Individuals on Warfarin (INR) measure beginning in 2020; however, due to the suspension of activities for the 2020 QRS, the 2021 ratings year was the first year of data collection for the INR measure. Additionally, CMS finalized the addition of the Annual Monitoring for Persons on Long-term Opioid Therapy (AMO) and Asthma Medication Ratio (AMR) measures in 2021 and QHP issuers were required to submit data for these measures as part of the 2021 QRS data.

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submission. Therefore, for the 2022 QRS, CMS included the INR, AMO, and AMR measures in scoring for the first time.

**Measures Removed from the QRS Measure Set:**

In the Final 2021 Call Letter, CMS announced the removal of the *Comprehensive Diabetes Care: Medical Attention from Nephropathy* measure from the QRS measure set beginning with the 2022 QRS ratings year. QHP issuers were not required to submit data for this measure as part of the 2022 QRS data submission. This measure will also no longer be included in scoring.

**Transition of Measures:**

In the Final 2021 Call Letter, CMS announced the transition of two measures in the QRS measure set beginning with the 2022 ratings year. For 2022, CMS removed the *Childhood Immunization Status (Combination 3)* measure from the QRS measure set and added the *Childhood Immunization Status (Combination 10)* measure. Additionally, for 2022, CMS updated the reporting requirements for the *Follow-up After Hospitalization for Mental Illness* measure to include the 7-Day and 30-Day Follow-up rates. QHP issuers were required to submit data for the *Childhood Immunization Status (Combination 10)* and *Follow-up After Hospitalization for Mental Illness (7-Day and 30-Day Follow-up)* measures as part of the 2022 QRS data submission. CMS anticipates including these measures in scoring beginning with the 2023 ratings year, at the earliest.

**Scoring Eligibility:**

For the 2021 QRS, CMS effectuated a change to the QRS scoring eligibility criteria in response to the COVID-19 public health emergency. Due to the suspension of 2020 QRS data collection, reporting units in their second year of operation were unable to submit data for the first time during the 2020 QRS ratings year. Therefore, in recognition of the impact of the COVID-19 public health emergency, CMS amended the scoring eligibility criteria such that the 2020 ratings year did not count toward scoring eligibility. As a result, reporting units were only considered scoring eligible if they were operational on an Exchange in 2018, 2019, and 2021, and met the minimum enrollment criteria.

For the 2022 QRS, CMS resumed applying the general QRS scoring eligibility criteria and considered reporting units that were operational on an Exchange in 2020, 2021, and 2022, and meet the minimum enrollment requirement, scoring eligible.

**QRS Hierarchy:**

For the 2021 QRS and in prior years, the QRS measures were grouped into hierarchy components (i.e., composites, domains, and summary indicators) to form a single global

---

2 QHP issuers no longer need to submit data for the Childhood Immunization Status (Combination 3) measure.
3 The Childhood Immunization Status (Combination 3) and Follow-up After Hospitalization for Mental Illness (7-Day Follow-up) measures will no longer be included in scoring.
rating. In the HHS Notice of Benefit and Payment Parameters for 2022 Final Rule, CMS finalized the removal of the composite and domain levels of the QRS hierarchy. This change supports alignment with other CMS quality reporting programs and helps improve balancing the influence of individual measures on the overall quality score. As a result of this change, CMS removed two levels of hierarchy aggregation and will no longer calculate composite and domain scores and ratings or include composite and domain scores in the calculation of summary indicator and global scores. Rather, CMS organized measures into summary indicators and continued to assign a weight of 2/3 (66.67%) to the Clinical Quality Management summary indicator, and a weight of 1/6 (16.67%) to both the Enrollee Experience and the Plan Efficiency, Affordability, & Management summary indicators to calculate the global score.

**QRS Scoring Methodology:**

In the Final 2021 Call Letter, CMS finalized the proposal to replace the z-score standardization approach with the Benchmark Ratio approach beginning with the 2022 ratings year. The Benchmark Ratio approach consists of two distinct parts: 1) the calculation of the measure-specific performance targets (i.e., measure benchmarks) and 2) the calculation of the measure scores using the measure benchmark. CMS calculated annual benchmarks using the measure data collected in a single ratings year. CMS believes this approach offers the potential of stabilizing scores across years and will provide QHP issuers with more interpretable scores and greater insight into their performance, both relative to their peers and based on individual, absolute performance towards satisfying performance standards.

**QRS Rating Methodology:**

Typically, CMS calculates QRS ratings using a clustering algorithm approach. However, in 2021, CMS implemented temporary QRS methodology changes to mitigate the impact of the COVID-19 public health emergency on the QRS ratings. These refinements included the temporary incorporation of a policy-based distribution for the overall global rating and three underlying summary indicator categories that mirrored the historical data-driven distribution of QRS ratings, and a rule for the 2021 ratings year that precluded health plans from decreasing in their overall global rating and summary indicator ratings by more than one star. In 2022, CMS resumed the calculation of ratings at the global and summary indicator levels using the clustering analysis.

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The key differences outlined in the text box below reflect methodology changes between the 2022 QRS and QHP Enrollee Survey Technical Guidance and the final 2022 QRS methodology. CMS finalized these methodology changes in the Final Call Letter.

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**Key Differences in QRS Methodology Between the 2022 QRS and QHP Enrollee Survey Technical Guidance and the Final 2022 QRS Methodology**

**Temporary QRS Methodology Changes:**

In the Final 2022 Call Letter, CMS finalized the retention of one temporary QRS methodology refinement to mitigate the impact of the continued COVID-19 public health emergency and provide stability in the QRS ratings as CMS refines the methodology:

- **Limit to Star Ratings Declines:** A rule that precludes health plans from decreasing in their global rating and summary indicator ratings by more than one star (e.g., if a reporting unit received a four-star global rating in ratings year 2021, the lowest global rating the reporting unit could receive in ratings year 2022 is three stars).

- Additional details are referenced in the following appendices:
  - Appendix B: Key to Invalid Codes in the 2022 QRS Proof Sheet
  - Appendix C: Additional Details on the Contents of the 2022 QRS Proof Sheet
  - Appendix D: Crosswalk of 2022 QHP Enrollee Survey Questions Included in the QRS.

Please submit questions regarding this document to the Marketplace Service Desk (MSD) via email to CMS_FEPS@cms.hhs.gov or phone at 1-855-267-1515. Please reference “MQI-QRS Preview” in the subject line.

## 2. Background

CMS will calculate the quality ratings for QHPs offered through all Health Insurance Exchanges (also known as Marketplaces), regardless of the Exchange model. Section 1311(c)(3) of the Patient Protection and Affordable Care Act (Affordable Care Act) directs the Secretary of the Department of Health & Human Services (HHS) to develop a quality rating for each QHP offered through an Exchange, based on quality and price.\(^8\) Section 1311(c)(4) of the Affordable Care Act directs the Secretary to establish an enrollee satisfaction survey that will assess enrollee satisfaction with each QHP offered through the Exchanges with more than 500 enrollees in the prior year.

The goals of the QRS and QHP Enrollee Survey are to:

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8 The Patient Protection and Affordable Care Act (Pub. L. 111–148) as amended by the Health Care and Education Reconciliation Act of 2010 (Pub. L. 111–152) (collectively referred to as the Affordable Care Act).
- Provide comparable and useful information to consumers about the quality of health care services and the experience of enrollees in QHPs offered through the Exchanges,
- Facilitate oversight of QHP issuer compliance with quality reporting standards set forth in the Affordable Care Act and implementing regulations, and
- Provide actionable information that QHP issuers can use to improve quality and performance.


3. QRS Preview via CMS’ Health Insurance Oversight System – Marketplace Quality Module

QHP issuers and state Exchange administrators will receive QHP quality rating information and QHP Enrollee Survey results, and will be able to preview these results via the CMS Health Insurance Oversight System-Marketplace Quality Module (HIOS-MQM) website during the annual preview period (anticipated August-September 2022).

During the QRS preview period, QHP issuers in all Exchanges will be able to preview their respective QRS ratings via the CMS HIOS-MQM website and submit related inquiries to CMS. A description of the documents available for preview is provided in Exhibit 1.

The QRS Preview Reports, QRS Proof Sheets, and QHP Enrollee Survey Quality Improvement (QI) Reports will be available for preview for each ratings-eligible reporting unit on the HIOS-MQM website. CMS recommends that QHP issuers review their QRS Preview Report first as the QRS Proof Sheet provides additional detail behind the ratings shown in the QRS Preview Report.

Exhibit 1. QRS and QHP Enrollee Survey Documents Available for Preview on the HIOS-MQM Website

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QRS Preview Report</td>
<td>The QRS Preview Report provides the QRS ratings for each QHP issuer’s reporting unit. The reporting unit is defined as the unique combination of QHP issuer, state, and product type. The ratings are provided on a 5-star scale for both QRS hierarchy components (i.e., summary indicators and the global score). The QRS Preview Report is available online and for download as a PDF file on the HIOS-MQM website.</td>
</tr>
<tr>
<td>QRS Proof Sheet</td>
<td>The QRS Proof Sheet provides additional detail behind the ratings shown in the QRS Preview Report. The QRS Proof Sheet is available for download on the HIOS-MQM website as a PDF file and CSV file. The PDF file displays outputs for each step of the QRS rating methodology, from the submitted measure rates (raw values) through the global score and rating. Specifically, the PDF file includes the following: - Scores and ratings for both QRS hierarchy components. - Raw measure rates for all collected QRS measures, including measures not included in scoring. For all measures, the file will include the rate and total denominator size. - Cut points used to convert numeric scores to star ratings for each QRS hierarchy component.</td>
</tr>
</tbody>
</table>
The CSV file provides additional information, specifically:
- Measure indicator, sub-measures, and b-sub-measure indicator values.
- The standard deviation and mean per measure. CMS created these values using data from all reporting units that are scoring eligible for the given measure.
- Percentile values for measure rates, allowing a QHP issuer to compare its reporting unit’s results to all other reporting units, nationally. CMS includes the 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles of the reported measure rates (raw values) across all reporting units, only using measure rates that have met the minimum denominator criteria for scoring.
- Measure benchmarks calculated during scoring using the Benchmark Ratio approach.
- Eligible population of the measure.

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Title</td>
<td>The CSV file provides additional information, specifically:</td>
</tr>
<tr>
<td>Description</td>
<td>• Measure indicator, sub-measures, and b-sub-measure indicator values.</td>
</tr>
<tr>
<td></td>
<td>• The standard deviation and mean per measure. CMS created these values using data from all reporting units that are scoring eligible for the given measure.</td>
</tr>
<tr>
<td></td>
<td>• Percentile values for measure rates, allowing a QHP issuer to compare its reporting unit’s results to all other reporting units, nationally. CMS includes the 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles of the reported measure rates (raw values) across all reporting units, only using measure rates that have met the minimum denominator criteria for scoring.</td>
</tr>
<tr>
<td></td>
<td>• Measure benchmarks calculated during scoring using the Benchmark Ratio approach.</td>
</tr>
<tr>
<td></td>
<td>• Eligible population of the measure.</td>
</tr>
</tbody>
</table>

| QHP Enrollee Survey Quality Improvement (QI) Reports | CMS-calculated results for the QRS include survey measures derived from a subset of questions in the QHP Enrollee Survey (as described in Section 4). Full results for the QHP Enrollee Survey are also made available to QHP issuers during the QRS preview period, via the QHP Enrollee Survey Quality Improvement (QI) Reports. Appendix A provides an overview of different resources through which QHP Enrollee Survey results are communicated to QHP issuers. Additional details for interpreting the QHP Enrollee Survey results are included in the QHP Enrollee Survey Scoring Methodology Guide (available on the HIOS-MQM website). |

### 3.1 Instructions for Accessing QRS Ratings

Access to the HIOS-MQM website is required to view QRS results during the QRS preview period. QHP issuers should follow these instructions to access their results:

1) Log in to the HIOS-MQM website.
   - Users new to HIOS need to request access to HIOS and the MQM through the CMS Enterprise Portal. Existing HIOS users who are new to the MQM need to request a new role. QHP issuers should request the Ratings/Reports Viewer role. The Ratings/Reports Viewer role authorizes users to perform predetermined functions and access certain data sets.
   - Detailed instructions for registering for access to HIOS and the MQM can be found in the HIOS-MQM Reference Guide located on CMS’ MQI website.

2) Navigate to the Preview Ratings and Survey Results webpage and search for the corresponding QHP issuer. The QRS Preview Report is available for view online by selecting the Online button. To download the QRS Preview Report and access the QRS Proof Sheet, click the Download link in the Preview Details table. The zip file also includes the QI Report(s) and instructions for interpreting the QHP Enrollee Survey results.

Exchange administrators who need to access the results for all reporting units operating in their respective states can do so by following these instructions:

1) Log in to the HIOS-MQM website.
   - Users new to HIOS need to contact the appropriate authorizing official: CMS (via the Marketplace Service Desk [MSD]) or the cognizant State Access Administrator (SAA) to initiate a role request.

2) Navigate to the Preview Ratings and Survey Results webpage and reports will populate for the user’s corresponding QHPs. To access the QRS Preview Report, QRS Proof Sheet, and QI Report, click the appropriate Download link at the bottom of the page.
3) Navigate to the Download State Ratings and Survey Results webpage and download the State-level compiled QHP Enrollee Survey QI Report by selecting the Download link in the State Level QI Report column.
   - In September of the ratings year, download the machine readable, state-level compiled QRS quality ratings data file by selecting the Download link in the State Rating File column. Download the State Ratings Report by selecting the Download link in the State Rating Report column. (The State Ratings Report communicates the same information as the State Rating File in a user-friendly format.)

4. QRS Rating Methodology

The QRS rating methodology is the process CMS uses to calculate QRS scores and ratings from QRS measure data (QRS clinical measure and QHP Enrollee Survey response data). This section describes how CMS calculates scores and ratings per the 2022 QRS requirements (see the 2022 QRS and QHP Enrollee Survey Technical Guidance).

QHP issuers are required to collect and submit validated QRS clinical measure data and QHP Enrollee Survey response data by product type with separate submissions by state. Therefore, the reporting unit for the QRS and QHP Enrollee Survey is defined by the unique combination of QHP issuer–state–product type.

CMS applies the QRS rating methodology to validated QRS measure data (i.e., QRS clinical measure data and a subset of the QHP Enrollee Survey response data [QRS survey measures]) to produce quality ratings on a 5-star rating scale. CMS uses collected data to calculate ratings for each reporting unit and applies these ratings to each QHP associated with that reporting unit. For 2022, QHP issuers were required to collect and submit validated data for 36 measures in the QRS measure set; however, two of these measures will not be included in scoring for 2022.

CMS incorporated the Childhood Immunization Status (Combination 10) and Follow-up After Hospitalization for Mental Illness (7-Day and 30-Day Follow-up) measures into the QRS measure set transitioning from the Childhood Immunization Status (Combination 3) measure and Follow-up After Hospitalization for Mental Illness (7-Day Follow-up) measure, respectively. CMS will begin data collection for these measures in 2022 but will not include them in scoring until the 2023 ratings year.

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9 Product type refers to Exclusive Provider Organization (EPO), Health Maintenance Organization (HMO), Point of Service (POS), and Preferred Provider Organization (PPO).

10 In communicating total measure counts, the totals presented here represent the perspective of the measure steward, rather than the perspective of the scoring methodology. If counting based on the perspective of the scoring methodology, QHP issuers were required to collect and submit validated data for 39 measures (rather than 36). The difference of three measures in this count comes from two factors. First, Prenatal and Postpartum Care (NQF #1517) is split into two distinct measures for the QRS hierarchy: 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.

4.1 QRS Measure Set and Hierarchy

The QRS measures are organized into a hierarchical structure that serves as a foundation of the QRS rating methodology, as shown in Exhibit 2. The measures are grouped into summary indicators to form a single global rating.

- Measures and hierarchy components highlighted in grey are not included in the calculation of 2022 QRS scores and ratings.
- Survey measures in the QRS measure set are noted with an asterisk (*). The QHP Enrollee Survey assesses enrollee experience with health care services; specific questions are grouped to form survey measures used in the QRS. Appendix D shows which QHP Enrollee Survey questions are used for each QRS survey measure.
- Measures not currently endorsed by the National Quality Forum (NQF) are noted as ¥.

<table>
<thead>
<tr>
<th>QRS Summary Indicator</th>
<th>QRS Measure ( * indicates survey measure)</th>
<th>NQF ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Quality Management</td>
<td>Asthma Medication Ratio</td>
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<tr>
<td></td>
<td>Antidepressant Medication Management</td>
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<td></td>
<td>Follow-Up After Hospitalization for Mental Illness (7-Day Follow-Up and 30-Day Follow-Up)</td>
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<tr>
<td></td>
<td>Initiation and Engagement of Alcohol and Other Drug Dependence Treatment</td>
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<tr>
<td></td>
<td>Controlling High Blood Pressure</td>
<td>0018</td>
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<tr>
<td></td>
<td>Proportion of Days Covered (RAS Antagonists)</td>
<td>0541</td>
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<td></td>
<td>Proportion of Days Covered (Statins)</td>
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<tr>
<td></td>
<td>Comprehensive Diabetes Care: Eye Exam (Retinal) Performed</td>
<td>0055</td>
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<tr>
<td></td>
<td>Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Control (&lt;8.0%)</td>
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</tr>
<tr>
<td></td>
<td>Proportion of Days Covered (Diabetes All Class)</td>
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<td>Annual Monitoring for Persons on Long-term Opioid Therapy</td>
<td>3541</td>
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<td></td>
<td>Plan All-Cause Readmissions</td>
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<td></td>
<td>International Normalized Ratio Monitoring for Individuals on Warfarin</td>
<td>0555</td>
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<td></td>
<td>Breast Cancer Screening</td>
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<td>Cervical Cancer Screening</td>
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<td>Colorectal Cancer Screening</td>
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<td>Flu Vaccinations for Adults Ages 18-64 *</td>
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<td>Medical Assistance with Smoking and Tobacco Use Cessation *</td>
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<td>Immunizations for Adolescents (Combination 2)</td>
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<td>Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents</td>
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<td>Well-Child Visits in the First 30 Months of Life</td>
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<td>Child and Adolescent Well-Care Visits</td>
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12 Definitions of NQF-endorsed measures can be found here: http://www.qualityforum.org/Home.aspx.
### QRS Summary Indicator

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<th>Enrollee Experience</th>
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<td>Care Coordination *</td>
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<td>Rating of All Health Care *</td>
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<tr>
<td>Rating of Personal Doctor *</td>
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<td>Rating of Specialist *</td>
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<table>
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<th>Plan Efficiency, Affordability, &amp; Management</th>
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<td>Appropriate Testing for Pharyngitis</td>
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<td>Appropriate Treatment for Upper Respiratory Infection</td>
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<td>Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis</td>
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<td>Use of Imaging Studies for Low Back Pain</td>
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<tr>
<td>Access to Information *</td>
<td>0007 ¥</td>
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<td>Plan Administration *</td>
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<td>Rating of Health Plan *</td>
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</table>

## 4.2 QRS Rating Methodology Overview

Exhibit 3 provides a visual overview of the QRS rating methodology, which illustrates how CMS converts submitted QRS measure data into summary indicator and global component scores and ratings. For the 2022 ratings year, CMS is retaining one of the two temporary refinements that were introduced for the 2021 ratings year to mitigate the impact of the COVID-19 public health emergency on ratings and provide stability in ratings as CMS refines the QRS methodology. For the 2021 ratings year, CMS finalized a policy-based distribution for the overall global rating and three underlying summary indicator categories that mirrored the historical data-driven distribution of QRS ratings, and a rule that prevents health plans from decreasing in their overall global rating and summary indicator ratings by more than one star. For the 2022 ratings year, CMS retained the temporary rule to limit star rating declines, so if a reporting unit received a four-star global rating in ratings year 2021, the lowest global rating the reporting unit could receive in ratings year 2022 is three stars.
CMS applies explicit weights at the summary indicator level when calculating QRS scores and ratings. CMS will assign a weight of 2/3 (66.67%) to the Clinical Quality Management summary indicator, and a weight of 1/6 (16.67%) to the Enrollee Experience and the Plan Efficiency, Affordability, & Management summary indicators. This weighting structure reflects the approximate percentage of measures in each summary indicator.

The process for calculating 2022 QRS scores and ratings is further detailed below in Exhibit 4. Steps for calculating QRS scores and ratings that are new or unique for the 2022 ratings year are denoted with an asterisk (*). CMS conducts quality assurance (QA) activities throughout the data scoring process, beginning upon receipt of QRS clinical measure data and QHP Enrollee Survey response data. These QA activities include verification of submitted data file attributes and data content quality checks to validate the accuracy, completeness, consistency, and validity of output files and reports.

### Exhibit 4. Steps for Calculating QRS Scores and Ratings

<table>
<thead>
<tr>
<th>Step</th>
<th>Sub-steps</th>
</tr>
</thead>
</table>
| Step 1. Calculate measure rates | • Calculate QRS clinical measure rates. For QRS clinical measures with multiple measure indicators, calculate measure rates per the method defined by the measure’s technical specifications.  
• Calculate QRS survey measure rates. For QRS survey measures, calculate measure rates from QHP Enrollee Survey data. |
| Step 2. Determine scoring status and application of denominator criteria | • Apply the scoring eligibility criteria. Only reporting units that have operated for three consecutive years on the Exchange and meet the QRS enrollment criteria are ratings eligible. Reporting units that do not meet the ratings eligibility criteria are removed from the analytical data, and do not go through steps 3-9 below.  
• Apply the denominator criteria. The minimum denominator size is 30 observations for QRS clinical measures (including clinical measures captured in the QHP Enrollee Survey), 150 for the Plan All-Cause Readmissions (PCR) measure, and 100 for QRS survey measures. Measures that do not meet the minimum denominator size requirement for scoring are excluded from QRS scoring. |
| Step 3. Apply the Benchmark Ratio approach to calculate benchmarks and standardized measure scores* | • Calculate measure benchmarks. Use the calculation for each measure type (i.e., QRS clinical measures, QRS CAHPS-based survey measures, PCR measure) to calculate a data-driven benchmark. The benchmark defines a performance threshold based on the top performance of reporting units on that measure.  
• Calculate measure scores. Transform all raw measure rates independently using the Benchmark Ratio approach. Compare the measure rate value of each reporting unit to the benchmark. Apply the upper cap to measure scores that exceed the score of 110. |
| Step 4. 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 (>= 50%) of the associated measures have a score.  
• Calculate the preliminary score. If the half-scale rule is met, average the underlying measure scores to calculate the corresponding summary indicator score. Otherwise, no summary indicator score is calculated. |
| Step 5. Apply explicit weights to summary indicator scores | • Calculate the final score. Multiply the summary indicator scores calculated in Step 4 by the appropriate explicit weights (e.g., Clinical Quality Management score x 0.6667 = weighted Clinical Quality Management score). |
| 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 received a score and at least one of the other two summary indicators received a score. Otherwise, no global score is calculated.  
• Calculate the score. If the above scoring rule is met, sum summary indicator scores (e.g., a weight of 2/3 (66.67%) to the Clinical Quality Management summary indicator, and a weight of 1/6 (16.67%) to the Enrollee Experience and the Plan Efficiency, Affordability, & Management summary indicators). |
Step 7. Convert scores to ratings

- Identify cut point values. Identify cut point values for the global level using a clustering algorithm and a jackknife (i.e., resampling) approach. CMS uses submitted, scored, and aggregated QRS measure data to identify four cut point values (to delineate the 5-star rating categories). The data are jackknifed to create multiple sub-samples and the clustering process is run on each sub-sample. Then the average cut point is calculated across all sub-samples to identify each cut point value.13
- Convert global scores to global ratings. Convert global score into a rating using the jackknifed cut points.

Step 8. Adjust summary indicator and global ratings

- Identify reporting units that decreased in their global or summary indicator rating(s) by more than one star. For 2022, CMS will identify reporting units that experienced a reduction of more than one star compared to 2021. CMS will then adjust the ratings for impacted reporting units such that no reporting unit’s rating decreases by more than one star at the summary indicator and global level.

Step 9. Produce QRS results for preview and finalization

- Prepare the Ratings Output File (ROF) (for internal CMS use).
- Prepare QRS Preview Reports and QRS Proof Sheets for preview.

4.3 Process for Calculating QRS Scores and Ratings

STEP 1: CALCULATE MEASURE RATES

If a QHP issuer submitted a valid measure rate for the reporting unit, then a numeric result will appear in the Raw Value field for the measure in the QRS Proof Sheet.

If a QHP issuer did not submit a valid measure rate for the reporting unit, then an invalid code will appear in the Raw Value field for the measure in the QRS Proof Sheet (and a null value [a dash, “-”] will appear in the Denominator Size field). A measure rate is considered invalid if the reporting unit received one of the audit designations provided in Exhibit 5.

<table>
<thead>
<tr>
<th>Audit Designation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit Not Offered (NB)</td>
<td>The QHP issuer did not offer the health benefit required by the measure.</td>
</tr>
<tr>
<td>Biased Rate (BR)</td>
<td>The QHP issuer’s calculated rate was materially biased.</td>
</tr>
<tr>
<td>Not Reported (NR)</td>
<td>The QHP issuer chose not to report the measure, or the measure rate was otherwise invalid (i.e., there is no valid rate because the denominator is zero).</td>
</tr>
</tbody>
</table>

Invalid measure data are not used in scoring, meaning not used in Step 3 (Apply the Benchmark Ratio approach to calculate benchmarks and standardized measure scores) or beyond. Invalid measure data are assigned an invalid code, NC (Not Calculated), for the measure score (i.e., shown in the Standardized score field).

**Measures not used in scoring:** For measures not included in scoring, the QRS Proof Sheet includes an invalid code, M-NS (Measure – Not Scored), for the measure score (i.e., shown in the Standardized score field). If a summary indicator score cannot be calculated due to inability to pass the half-scale rule, then the reporting unit receives the invalid code, Component Score or Rating – Not Scored (CSR-NS).

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13 The jackknife process provides more robust estimates, making the cut points less vulnerable to data changes.
For all measures, CMS calculates measure rates (raw values) for QRS clinical and survey measures as described in detail below.

**QRS Clinical Measures**

For QRS clinical measures composed of multiple indicators, CMS uses various aggregation methods to calculate a measure rate per the measure’s technical specifications. See Exhibit 6 for a summary of each method; further detail can be found in the *2022 Quality Rating System Measure Technical Specifications*.

### Exhibit 6. Aggregation Methods for QRS Clinical Measures with Multiple Indicators

<table>
<thead>
<tr>
<th>Measure (M)</th>
<th>Measure Indicator (MI)</th>
<th>Method for Calculating Measure Rate</th>
<th>Method for Calculating Total Measure Eligible Population</th>
</tr>
</thead>
</table>
| **Annual Dental Visits**         | • Annual Dental Visit (2-3 Years)  
• Annual Dental Visit (4-6 Years)  
• Annual Dental Visit (7-10 Years)  
• Annual Dental Visit (11-14 Years)  
• Annual Dental Visit (15-18 Years)  
• Annual Dental Visit (19-20 Years) | $\sum \frac{\text{Numerator}}{\text{Denominator}}$                                   | Sum of MI denominators                                                      |
| **Antidepressant Medication Management** | • Antidepressant Medication Management: Acute  
• Antidepressant Medication Management: Continuation | Average of MI rates                  | Average of MI eligible populations                            |
| **Chlamydia Screening in Women** | • Chlamydia Screening (16-20 Years)  
• Chlamydia Screening (21-24 Years) | $\sum \frac{\text{Numerator}}{\text{Denominator}}$                                   | Sum of MI eligible populations                                             |

---

14 Below sub-measure indicators (b-sub-MI) are rates for a single age-band across several assessment areas; they are aggregated together to calculate the sub-MI rate estimate for a single assessment area.

15 The measure rate is calculated via a sum of MI numerators divided by the sum of MI denominators. The numerator of a given MI rate can be calculated by multiplying the MI rate by the denominator for the MI.

16 Due to this measure being a combination of an initiation and continuation or acute and continuation phases (each represented as a measure indicator), if the denominator for the engagement or continuation phase is zero, the rate is set to missing. Since the denominator indicates the number of eligible enrollees for a given measure per reporting unit, if no enrollees are eligible for reporting, then rates for that measure should not impact the scoring results for the reporting unit id. This recoding began in CY 2019.
<table>
<thead>
<tr>
<th>Measure (M)</th>
<th>Measure Indicator (MI)</th>
<th>Method for Calculating Measure Rate</th>
<th>Method for Calculating Total Measure Eligible Denominator Size</th>
<th>Method for Calculating Total Measure Eligible Population</th>
</tr>
</thead>
</table>
| Initiation and Engagement of Alcohol and Other Drug (AOD) Dependence | • Initiation of Alcohol and Other Drug Dependence Treatment (Total)  
  - Initiation (13-17)*  
    ▪ Alcohol Abuse or Dependence  
    ▪ Opioid Abuse or Dependence  
    ▪ Other Drug Abuse or Dependence  
  - Initiation (18+)*  
    ▪ Alcohol Abuse or Dependence  
    ▪ Opioid Abuse or Dependence  
    ▪ Other Drug Abuse or Dependence  
  • Engagement of Alcohol and Other Drug Dependence Treatment (Total)  
  - Engagement (13-17) *  
    ▪ Alcohol Abuse or Dependence  
    ▪ Opioid Abuse or Dependence  
    ▪ Other Drug Abuse or Dependence  
  - Engagement (18+) *  
    ▪ Alcohol Abuse or Dependence  
    ▪ Opioid Abuse or Dependence  
    ▪ Other Drug Abuse or Dependence | Three Steps:  
  1. Sub-MI = Count of unique enrollees per age band across treatments (b-sub-MIs)  
  2. \[
  \sum_{\text{sub-MI}} \frac{\text{Numerator}}{\text{Denominator}}
  \]
  3. Average of MI rates | Three Steps:  
  1. Sub-MI = Count of unique enrollees per age band across treatments (b-sub-MIs)  
  2. \[
  \sum_{\text{sub-MI}} \frac{\text{Numerator}}{\text{Denominator}}
  \]
  3. Average of MI denominators | Three Steps:  
  1. Sub-MI = Count of unique enrollees per age band across treatments (b-sub-MIs)  
  2. \[
  \sum_{\text{sub-MI}} \frac{\text{Numerator}}{\text{Denominator}}
  \]
  3. Average of MI eligible populations |
| Plan All-Cause Readmissions | • Observed Readmission Rate (Numerator/Denominator) Total  
  • Average Adjusted Probability Total | Observed Readmission Rate divided by Average Adjusted Probability | Sum of count of index hospital stays among nonoutlier members across all age bands | N/A: PCR does not have an eligible population |

17 Sub-measure indicators (sub-MIs) are combined via an average (sum of numerators divided by sum of denominators) to create the rate for a measure indicator (MI).
<table>
<thead>
<tr>
<th>Measure (M)</th>
<th>Measure Indicator (MI)</th>
<th>Method for Calculating Measure Rate</th>
<th>Method for Calculating Total Measure Eligible Population</th>
</tr>
</thead>
</table>
| Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents | • Body Mass Index (BMI) Percentile Documentation  
  - BMI Percentile – 3-11 Years*  
  - BMI Percentile – 12-17 Years*  
  • Counseling for Nutrition  
  - Counseling for nutrition – 3-11 Years*  
  - Counseling for nutrition – 12-17 Years*  
  • Counseling for Physical Activity  
  - Counseling for Physical Activity – 3-11 Years*  
  - Counseling for Physical Activity – 12-17 Years* | Two Steps:  
  1. \( \frac{\sum \text{Numerator}_{\text{sub-MI}}}{\sum \text{Denominator}_{\text{sub-MI}}} \)  
  2. Average of MI rates | Two Steps:  
  1. \( \sum \text{Denominator}_{\text{sub-MI}} \)  
  2. Average of MI denominators |
| Well-Child Visits in the First 30 Months of Life                           | • Well-Child Visits in the First 15 Months  
  • Well-Child Visits for Age 15 Months – 30 Months | \( \frac{\sum \text{Numerator}}{\sum \text{Denominator}} \) Sum of MI denominators | Sum of MI eligible populations |
<table>
<thead>
<tr>
<th>Measure (M)</th>
<th>Measure Indicator (MI)</th>
<th>Method for Calculating Measure Rate</th>
<th>Method for Calculating Total Measure Denominator Size</th>
<th>Method for Calculating Total Measure Eligible Population</th>
</tr>
</thead>
</table>
| Medical Assistance with Smoking and Tobacco Use Cessation \(^{18}\) | - How Often Advised to Quit Smoking or Using Tobacco  
  - How Often Advised to Quit Smoking or Using Tobacco (Current Year)  
  - How Often Advised to Quit Smoking or Using Tobacco (Previous Year)  
  - How Often Medication Recommended or Discussed  
  - How Often Medication Recommended or Discussed (Current Year)  
  - How Often Medication Recommended or Discussed (Previous Year)  
  - How Often Provided Strategies to Quit  
  - How Often Provided Strategies to Quit (Current Year)  
  - How Often Provided Strategies to Quit (Previous Year) | Two Steps:  
  1. \(\frac{\sum \text{Numerator}_{\text{sub-MI}}}{\sum \text{Denominator}_{\text{sub-MI}}}\)  
  2. Average of MI rates | Two Steps:  
  1. \(\sum \text{Denominator}_{\text{sub-MI}}\)  
  2. Average of MI denominators | Two Steps:  
  1. \(\sum \text{Elig}_{\text{sub-MI}}\)  
  2. Average of MI eligible populations |
| Follow-up After Hospitalization for Mental Illness (7-Day Follow-up and 30-Day Follow-Up) | - Percentage of discharges for which the member received follow-up within 30 days after discharge  
  - Percentage of discharges for which the member received follow-up within 7 days after discharge | Average of MI Rates | Average of MI denominators | Average of MI eligible populations |

QRS Survey Measures

For QRS survey measures, CMS calculates measure rates from QHP Enrollee Survey questions.

Appendix D shows which QHP Enrollee Survey questions are used for each QRS survey measure.

\(^{18}\) The Medical Assistance with Smoking and Tobacco Use Cessation (Tobacco) measure is calculated as a two-year rolling average based on sub-MI data. Typically, CMS uses the data reported in the prior year and the ratings year to calculate a two-year rolling average. CMS merges information for a given reporting unit from the prior year onto the data from the ratings year to calculate the measure score. Missing data is recoded to zero for rate calculation. The Tobacco sub-MIs are reported in the QRS Proof Sheets as M25a1-M25c1 and M25a2-M25c2, respectively. For reporting units that were ineligible to receive a QRS rating in the prior year, CMS uses the reported rates from the prior year and current year to calculate the Tobacco measure score, even though the reporting unit was not ratings-eligible in the prior year. For example, if a reporting unit is newly eligible to receive a QRS rating in 2022, CMS will use the reporting unit’s reported data for 2021 and 2022 to calculate the Tobacco measure score.
QRS survey measures are grouped into two categories:

1. **CAHPS®-based**: Consumers’ experience of care measures based on the Consumer Assessment of Healthcare Providers and Systems (CAHPS®), and
2. **Clinical measures captured in QHP Enrollee Survey**: Selected clinical measures based on the Healthcare Effectiveness Data and Information Set (HEDIS®).

CMS calculates QRS survey measure rates according to the scoring specifications described below.

**CAHPS®-based QRS Survey Measures**

CMS calculates CAHPS®-based QRS survey measures with an approach similar to the one CMS uses in the Medicare Advantage-Prescription Drug Program (MA-PDP) quality measurement initiative for data collected through the MA-PDP CAHPS® survey.19

CMS calculates QRS survey measures rates from the QHP Enrollee Survey using the CAHPS® Analysis Program Version 5.0 (“CAHPS® macro”), which was developed by the CAHPS® Consortium under the auspices of the Agency for Healthcare Research and Quality (AHRQ). A comprehensive description of the calculations performed by the CAHPS® macro, including additional information on weighting and case-mix adjustment, can be found in the *Instructions for Analyzing Data from CAHPS Surveys*.

To adjust for any systematic biases with the enrollee response data, CMS applies a case-mix adjustment to the QHP Enrollee Survey response data and uses the adjusted data when calculating the QRS survey measures. It is common in survey-based applications to case-mix adjust for such factors as overall health status, age, and education to account for biases due to survey response tendencies. The QHP Enrollee Survey variables used in the case-mix adjustment include the following: general health rating, mental health rating, chronic conditions/medications, age, education, survey language, help with the survey, and survey mode.

All CAHPS®-based measures are based on weighted, case-mix adjusted means. CMS uses person-level sampling weights to account for the different probabilities of selection across reporting units. The weights are calculated as follows:

\[
Final \ Weight = \left( \frac{M}{n_s} \right) \times k
\]

Where:

- \(n_s\) = Total number of sampled enrollees in the sampling unit;
- \(M\) = Total number of records in the sampling unit after-de-duplication;
- \(k\) = Number of eligible enrollees covered by the Subscriber or Family ID (SFID) that covers the sampled enrollee.

As shown below, all CAHPS®-based questions should be coded so higher values represent more positive responses.

---

Rating of Health Plan

Question 20 in the 2022 QHP Enrollee Survey asks, “Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan in the last 6 months?” Use the following steps to calculate the QRS measure rate for Rating of Health Plan:

1. Calculate the weighted, case-mix adjusted mean for question 20.
2. Transform to a 0 – 100 scale as follows: score = [(x – a)/(b – a)]*100, where x = the weighted, case-mix adjusted mean from step 1; a = minimum possible value of x; and b = maximum possible value of x. This is the QRS measure rate for Rating of Health Plan.

   Note: This rescaling allows the presentation of different measures on a common metric; the transformation to a 0 – 100 scale applies to all QRS survey measures that are CAHPS®-based.

Rating of All Health Care

Question 27 in the 2022 QHP Enrollee Survey asks, “Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months? Include in-person, telephone, or video appointments” To calculate the QRS measure rate for Rating of All Health Care measure, use the same steps that were used to calculate the rate for Rating of Health Plan.

Rating of Personal Doctor

Question 40 in the 2022 QHP Enrollee Survey asks, “Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?” To calculate the QRS measure rate for Rating of Personal Doctor, use the same steps that were used to calculate the rate for Rating of Health Plan.

Rating of Specialist

Question 44 in the 2022 QHP Enrollee Survey asks, “We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?” To calculate the QRS measure rate for Rating of Specialist, use the same steps that were used to calculate the score for Rating of Health Plan.

Access to Care

The QRS Access to Care measure is made up of four questions, all of which are coded on a 1 – 4 scale in the 2022 QHP Enrollee Survey (i.e., 1 = Never, 2 = Sometimes, 3 = Usually, and 4 = Always). Use the following steps to calculate the QRS measure rate for Access to Care:

1. Calculate the weighted, case-mix adjusted mean separately for each item included in the Access to Care measure:

   Question 22: In the last 6 months, when you needed care right away, in an emergency room, doctor’s office, or clinic, how often did you get care as soon as you needed? Include in-person, telephone, or video appointments.
Question 23: In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor’s office or clinic as soon as you needed? Include in-person, telephone, or video appointments.

Question 25: In the last 6 months, how often was it easy to get the care, tests, or treatment you needed? Include in-person, telephone, or video appointments.

Question 41: In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed? Include in-person, telephone, or video appointments.

2. Calculate the average of the weighted, case-mix adjusted means across the four survey questions; use equal weighing of the questions.

3. Transform the average from Step 2 to a 0 – 100 scale (use the same formula as described in Step 2 for Rating of Health Plan). This is the QRS measure rate for Access to Care.

Care Coordination

The QRS Care Coordination measure is made up of six questions, all of which are coded on a 1 – 4 scale in the 2022 QHP Enrollee Survey (i.e., 1 = Never, 2 = Sometimes, 3 = Usually, and 4 = Always). Use the following steps to calculate the QRS measure rate for the Care Coordination measure:

1. Questions 34 and 35 are combined into a single measure to assess getting results after a blood test, x-ray, or other test. Calculate the average of the weighted, case-mix adjusted means for Questions 34 and 35 using equal weighting of the two questions. Use this average in Step 3.

2. Calculate the weighted, case-mix adjusted mean separately for each question included in the Care Coordination measure:
   - Question 33: When you visited your personal doctor for a scheduled appointment in the last 6 months, how often did he or she have your medical records or other information about your care? Include in-person, telephone, or video appointments.
   - Question 34: In the last 6 months, when your personal doctor ordered a blood test, x-ray, or other test for you, how often did someone from your personal doctor’s office follow up to give you those results?
   - Question 35: In the last 6 months, when your personal doctor ordered a blood test, x-ray, or other test for you, how often did you get those results as soon as you needed them?
   - Question 43: In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from specialists?
   - Question 36: In the last 6 months, how often did you and your personal doctor talk about all the prescriptions medicines you were taking?
   - Question 39: In the last 6 months, how often did you get the help that you needed from your personal doctor’s office to manage your care among these different providers and services?
3. Calculate the average of the weighted, case-mix adjusted means across the five survey questions (i.e., Questions 33, 43, 36, and 39, and the average of Questions 34 and 35 from Step 2); use equal weighting of the questions.

4. Transform the average from Step 3 to a 0 – 100 scale (use the same formula as described in Step 2 for Rating of Health Plan). This is the QRS measure rate for Care Coordination.

Access to Information

The QRS Access to Information measure is made up of three questions, all of which are coded on a 1 – 4 scale in the 2022 QHP Enrollee Survey (i.e., 1 = Never, 2 = Sometimes, 3 = Usually, and 4 = Always). Use the following steps to calculate the QRS measure rate for Access to Information:

1. Calculate the weighted, case-mix adjusted mean separately for each item included in the Access to Information measure:
   - Question 3: In the last 6 months, how often did the written materials or the Internet provide the information you needed about how your health plan works?
   - Question 4: In the last 6 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment before you got it?
   - Question 5: In the last 6 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medicines?

2. Calculate the average of the weighted, case-mix adjusted means across the three survey questions; use equal weighing of the questions.

3. Transform the average from Step 2 to a 0 – 100 scale (use the same formula as described in Step 2 for Rating of Health Plan). This is the QRS measure rate for Access to Information.

Plan Administration

The QRS Plan Administration measure is made up of five questions, all of which are coded on a 1 – 4 scale in the 2022 QHP Enrollee Survey (i.e., 1 = Never, 2 = Sometimes, 3 = Usually, and 4 = Always). Use the following steps to calculate the QRS score for the Plan Administration measure:

1. Calculate the weighted, case-mix adjusted mean separately for each item included in the Plan Administration measure:
   - Question 6: In the last 6 months, how often did your health plan’s customer service give you the information or help you needed?
   - Question 7: In the last 6 months, how often did your health plan’s customer service staff treat you with courtesy and respect?
   - Question 8: In the last 6 months, how often did the time that you waited to talk to your health plan’s customer service staff take longer than you expected?
Note: To make the direction of coding of Question 8 consistent with the other questions, Question 8 needs to be recoded so higher values represent a more positive response, as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Original</th>
<th>Code Recode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Usually</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Always</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Question 9: In the last 6 months, how often were the forms from your health plan easy to fill out?

Question 10: In the last 6 months, how often did the health plan explain the purpose of a form before you filled it out?

2. Calculate the average of the weighted, case-mix adjusted means across the five survey questions; use equal weighing of the questions.

3. Transform the average from Step 2 to a 0 – 100 scale (use the same formula as described in Step 2 for Rating of Health Plan). This is the QRS measure rate for Plan Administration.

QRS Clinical Measures Captured in QHP Enrollee Survey

The following QRS survey measures are clinical in nature:

- Flu Vaccinations for Adults Ages 18-64
- Medical Assistance with Smoking and Tobacco Use Cessation

Scoring specifications for the clinical measures collected through the 2022 QHP Enrollee Survey follow the HEDIS® specifications as defined by NCQA. CMS applies the QRS clinical measure denominator criterion of 30 to all clinical measures captured in the QHP Enrollee survey. The scoring procedures are described below. These specifications are also presented in the 2022 Quality Rating System Measure Technical Specifications.

Flu Vaccinations for Adults Ages 18-64

The QRS survey measure captures the proportion of eligible plan enrollees who received a flu vaccination. The following steps are used for calculating the QRS survey measure (flu_shot):

1. Select eligible enrollees:
   - Include:
     - Enrollees age 18-64 (to determine eligibility use flu_flag from the sampling frame, which indicates eligibility for the flu shot based on the person’s age as of July 1, 2021).
   - Exclude:
     - Respondents with a missing value code on flu_shot (i.e., respondents coded as -1, -3, or 3 on flu_shot).

2. Calculate the proportion of eligible enrollees for whom flu_shot=1 to create the final QRS survey measure rate for Flu Vaccinations for Adults Ages 18-64.
Note: The proportion is not weighted and is not case-mix adjusted.

**Medical Assistance with Smoking and Tobacco Use Cessation**

The QRS survey measure is made up of three items/indicators, all of which are coded on a 1 – 4 scale in the questionnaire. All items require two years of data collection.

The inclusion/exclusion criteria for the measure include the following steps:

A. Select eligible enrollees (the criteria for each of the three indicators follow separately):

   Advising Smokers and Tobacco Users to Quit (advised_quit_tob):
   - Include:
     - Current smokers or tobacco user (i.e., respondents coded as 1 or 2 on use_tobacco).
   - Exclude:
     - Respondents with a missing value code on advised_quit_tob (i.e., respondents coded as -1, -2, -3, or -7 on advised_quit_tob).

   Discussing Cessation Medications (recommend_tob_med):
   - Include:
     - Current smokers or tobacco user (i.e., respondents coded as 1 or 2 on use_tobacco).
   - Exclude:
     - Respondents with a missing value code on recommend_tob_med (i.e., respondents coded as -1, -2, -3, or -7 on recommend_tob_med).

   Discussing Cessation Strategies (discuss_tob_non_meds):
   - Include:
     - Current smokers or tobacco user (i.e., respondents coded as 1 or 2 on use_tobacco).
   - Exclude:
     - Respondents with a missing value code on discuss_tob_non_meds (i.e., respondents coded as -1, -2, -3, or -7 on discuss_tob_non_meds).

B. Calculate the unadjusted proportion of respondents who indicated on each item included in the measure that they received some level of advice/discussion (i.e., proportion on each item with codes of Sometimes, Usually, or Always).

   Note: The proportion is not weighted and not case-mix adjusted. These are the indicators used in the calculation of the QRS survey measure rate for Medical Assistance with Smoking and Tobacco Use Cessation:
   - advised_quit_tob (i.e., proportion of respondents coded as 2, 3, or 4),
   - recommend_tob_med (i.e., proportion of respondents coded as 2, 3, or 4),
   - discuss_tob_non-meds (i.e., proportion of respondent coded as 2, 3, or 4).
STEP 2: DETERMINE SCORING STATUS AND APPLICATION OF DENOMINATOR CRITERIA

For each reporting unit, CMS assesses whether measure data can be included in QRS scoring based on the reporting unit’s ratings eligibility status, and each measure’s denominator size. A reporting unit is considered ratings-eligible if it operated in an Exchange for three consecutive years (i.e., 2020, 2021, and 2022), and meets the minimum enrollment criteria (i.e., more than 500 enrollees as of July 1 of the prior year [i.e., 2021] and the ratings year [i.e., 2022]).

Reporting units that do not meet the ratings eligibility criteria are removed from scoring and will receive an invalid code, as described in Appendix B. Similarly, while QHP issuers submit measure data to CMS regardless of denominator size, measures that do not meet the minimum denominator criteria for scoring (see Exhibit 7) are excluded from QRS scoring.

Exhibit 7. Minimum Denominator Size Required for Inclusion in QRS Scoring

<table>
<thead>
<tr>
<th>Measure</th>
<th>Minimum Denominator Criteria for Inclusion in QRS Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>QRS Clinical Measure</td>
<td>30</td>
</tr>
<tr>
<td>PCR Measure</td>
<td>150</td>
</tr>
<tr>
<td>QRS Clinical Measures Captured in QHP Enrollee Survey</td>
<td>30</td>
</tr>
<tr>
<td>QRS CAHPS®-based Survey Measure</td>
<td>100</td>
</tr>
</tbody>
</table>

The minimum denominator size of 100 applies to all QRS CAHPS®-based survey measures, regardless of the number of survey questions associated with the measure. The minimum denominator size of 30 applies to all QRS clinical measures (including those clinical measures captured in the 2022 QHP Enrollee Survey), with the exception of the PCR measure, whose minimum denominator is 150.

For measures with an insufficient denominator size, CMS assigns the measure an invalid code (i.e., NC/Not Calculated) and excludes the measure from scoring.

QRS Clinical Measures

For QRS clinical measures, CMS determines if the minimum denominator size is met based on the measure’s total denominator size. Different measures have different aggregation methods, as shown in Exhibit 6.

As shown in the illustrative example in Exhibit 8, the measure Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents has three indicators. For this example reporting unit, the measure’s calculated total measure denominator size of 995 meets the minimum denominator size criteria of 30. Therefore, CMS uses these measure data in QRS scoring (i.e., proceed to use this measure data in the standardization procedures described in Step 3).

Exhibit 8. Example Denominator Size for QRS Clinical Measure Indicators

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of QRS Component</th>
<th>Denominator Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI percentile documentation</td>
<td>Indicator</td>
<td>1641</td>
</tr>
<tr>
<td>Counseling for nutrition</td>
<td>Indicator</td>
<td>17</td>
</tr>
<tr>
<td>Counseling for physical activity</td>
<td>Indicator</td>
<td>1327</td>
</tr>
<tr>
<td>Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents</td>
<td>Measure</td>
<td>995</td>
</tr>
</tbody>
</table>
CAHPS®-based QRS Survey Measures

For CAHPS®-based QRS survey measures, CMS determines if the minimum denominator size is met based on the measure’s total denominator size. The denominator size for the measure is equal to the total number of unique respondents who provided a response to at least one of the questions.

Exhibit 9 shows an example (using mock data) of denominator size calculation for the CAHPS®-based QRS survey measure, Access to Care. Access to Care is composed of four questions. As shown, there can be valid denominator observations for each of the four questions that are lower than 100 and yet the measure denominator size can still be greater than 100. Enrollees are not required to respond to all survey questions to be included in a given measure’s denominator or rate. The total measure denominator size (161), meaning that 161 unique respondents answered across the four questions needed to calculate Access to Care, is greater than the minimum denominator size needed for QRS scoring (100). Therefore, CMS calculates the average of the case-mix adjusted mean across the four survey questions to obtain the Access to Care measure score.

### Exhibit 9. Example of Total Denominator Size Calculation for CAHPS®-Based QRS Survey Measure

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of QRS Component</th>
<th>Question Details</th>
<th>Denominator Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHPS® Getting Care Quickly: Non-Urgent Care</td>
<td>Indicator</td>
<td>Question 22: In the last 6 months, how often did you get an appointment for a check-up or routine care, in an emergency room, doctor’s office, or clinic, how often did you get care as soon as you needed? Include in person, telephone, or video appointments.</td>
<td>136</td>
</tr>
<tr>
<td>CAHPS® Getting Care Quickly: Urgent Care</td>
<td>Indicator</td>
<td>Question 23: In the last 6 months, when you needed care right away, how often did you get care as soon as you needed? Include in person, telephone, or video appointments.</td>
<td>77</td>
</tr>
<tr>
<td>CAHPS® Getting Needed Care: Easy Care, Tests, or Treatment</td>
<td>Indicator</td>
<td>Question 25: In the last 6 months, how often was it easy to get the care, tests, or treatment you needed? Include in person, telephone, or video appointments.</td>
<td>146</td>
</tr>
<tr>
<td>CAHPS® Getting Needed Care: Easy to See Specialist</td>
<td>Indicator</td>
<td>Question 41: In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed? Include in person, telephone, or video appointments.</td>
<td>90</td>
</tr>
</tbody>
</table>

**Access to Care** | Measure | 161 |

**STEP 3: APPLY THE BENCHMARK RATIO APPROACH TO CALCULATE BENCHMARKS AND STANDARDIZE MEASURE SCORES**

CMS calculates measure scores using the Benchmark Ratio approach, beginning with the 2022 ratings year. The Benchmark Ratio approach consists of two distinct parts: 1) the calculation of the measure specific performance targets (i.e., measure benchmarks) and 2) the calculation of the measure scores using the measure benchmark. CMS calculates measure benchmarks annually using measure data collected in a single ratings year. A benchmark is calculated for each measure using the data for all reporting units eligible to receive a score for the given measure (i.e., reporting units are excluded from the benchmark calculation if they are not ratings eligible or do not meet the minimum denominator criteria).
Given differences in the structure of measures, CMS uses different benchmark calculations for certain measure types. The steps for calculating each measure-specific benchmark (i.e., QRS clinical measures, PCR measure, and QRS CAHPS-based survey measures) are below.

**Clinical Measures (Excluding PCR) Benchmark Calculation**

The process to create a clinical measure-specific benchmark is as follows:

A. Rank all reporting units from highest to lowest performance based on the reported measure rate.

B. Sum the eligible population across reporting units to calculate the total number of eligible enrollees; calculate 10% of the total number of enrollees.\(^{20,21}\)

C. Select the subset of the highest performing scoring eligible reporting units until ≥10% of total number of enrollees is captured in the subset.\(^{22}\)

D. Sum the number of enrollees associated with the reporting units selected in Step C by combining the numerators for the measures (i.e., calculate the numerator).

   a. For measure data captured using the hybrid method, the reported rate is extrapolated to the eligible population, creating an estimated numerator relative to the eligible population, instead of the selected sample of cases.

E. Sum the eligible populations associated with the reporting units selected in Step C (i.e., calculate the denominator).

F. Divide the numerator from Step D by the denominator in Step E to generate the measure benchmark.

\[
Benchmark_{Measure X} = \frac{\sum_{i=1}^{n} (Rate_{X,RU i} \times Elig_{X,RU i})}{\sum_{i=1}^{n} Elig_{X,RU i}}
\]

Where \(n = \) the highest performing, scoring – eligible reporting units post – denominator criteria until ≥ 10% of the total denominator is represented

**PCR Measure Benchmark Calculation**

The process to create the PCR measure benchmark is as follows:

A. Rank all reporting units from highest-performing to lowest-performing (i.e., lowest values to highest values) based on the reported PCR measure rate.

---

\(^{20}\) The eligible population for the *Flu Vaccinations for Adults Ages 18 – 64* measure includes enrollee 18-64, as defined by the flu_flag field.

\(^{21}\) The eligible population for the Medical Assistance with Smoking and Tobacco Use Cessation measure is defined as current smokers or tobacco users (i.e., respondents coded as 1 or 2 on the use_tobacco field) aggregated from prior year and current submission eligible data.

\(^{22}\) In the case of tied RUs based on reported, valid, and top performing measure rates, all tied RU data will be included in the benchmark.
B. Calculate the count of Observed Readmissions by multiplying the measure denominator (count of index hospital stays) by the measure indicator for Observed Readmissions rate.

C. Calculate the count of Expected Readmissions by multiplying the measure denominator by the measure indicator for Expected Readmissions rate.

D. Sum the count of index hospital stays (IHS) to identify the total number of IHS across all scoring-eligible RU's satisfying denominator criteria.

E. Calculate 10% of the total number of IHS identified in Step D.

F. Select RUs starting from highest performing (i.e., lowest reported PCR rate) until ≥10% of total IHS is represented.

G. Sum the count of Observed Readmissions from subset of reporting units selected in Step F.

H. Sum the count of Expected Readmissions from subset of reporting units selected in Step F.

I. Divide count of observed readmissions from Step G (i.e., numerator) by the count of expected readmissions from Step H (i.e., denominator) to determine the benchmark for PCR.

\[
\text{Benchmark}_{\text{PCR}} = \frac{\sum_{i=1}^{n} (\text{Observed Readmissions Rate}_{\text{PCR,RU}_i} \times \text{Den}_{\text{PCR,RU}_i})}{\sum_{i=1}^{n} (\text{Expected Readmissions Rate}_{\text{PCR,RU}_i} \times \text{Den}_{\text{PCR,RU}_i})}
\]

Where \( n = \text{the highest performing (based on reported PCR), scoring} - \text{eligible reporting units post denominator criteria until} \geq 10\% \text{of the total denominator (Count of Index Hospital Stays) is represented}

Survey Measure Benchmark Calculation

The process to create the CAHPS-based survey measure-specific benchmark is as follows:

A. Rank all reporting units from highest to lowest based on the reported measure rate.

B. Calculate the eligible population across scoring-eligible reporting units meeting the denominator criteria per measure using the sampled enrollees selected to receive the survey as a proxy for eligible population.
   a. Eligible population for survey measures is approximated as the sample of enrollees minus those deemed ineligible via codes X20 and X40.

C. Select the subset of the highest performing scoring eligible reporting units until ≥10 percent of the total sampled enrollee population (defined in Step B) is captured.

D. Calculate the weighted mean of the reported measure rate for the top-performing subset selected in Step C, weighted using the sample size per reporting units, to generate the modified benchmark.

\[
\text{Benchmark}_{\text{Measure} \ X} = \frac{\sum_{i=1}^{n} \left( \text{Rate}_{X,\text{RU}_i} \times \text{Sample Size}_{X,\text{RU}_i} \right)}{\sum_{i=1}^{n} \left( \text{Sample Size}_{X,\text{RU}_i} \right)}
\]

Where \( n = \text{the highest performing, scoring} - \text{eligible reporting units post denominator criteria until} \geq 10\% \text{of the total Sampled Enrollee population is represented}
After calculation of the benchmarks for each measure, CMS calculates measure scores by independently transforming the raw measure rate using the measure benchmarks. The scores reflect how well a reporting unit did compared to the measure-specific performance target.

To calculate scores for measures other than the PCR and AMO measures, CMS independently divides each reporting unit’s reported measure rate by the measure benchmark and multiplies by 100. An example using mock data is shown in Exhibit 10.

**Exhibit 10. Example Clinical non-PCR and CAHPS-Adjusted Survey Measure Score after Benchmark Ratio Approach**

<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Raw Value</th>
<th>Measure Benchmark</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical Cancer Screening</td>
<td>0.6213781</td>
<td>0.773</td>
<td>80.385</td>
</tr>
</tbody>
</table>

Reporting Unit CCS Measure Score: \( \frac{0.6213781}{0.773} \times 100 = 80.385 \)

To calculate the measure score for measures where lower rates indicate better performance (i.e., PCR and AMO), CMS uses a slightly modified calculation than with other clinical and survey measures. The score for the PCR measure is calculated as shown below:

**Exhibit 11. Example PCR Score after Benchmark Ratio Approach**

<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Raw Value</th>
<th>Measure Benchmark</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan All-Cause Readmissions</td>
<td>0.7710132</td>
<td>0.545</td>
<td>58.530</td>
</tr>
</tbody>
</table>

Reporting Unit PCR Measure Score: \( 100 + \left( 1 - \left( \frac{0.7710132}{0.545} \right) \right) \times 100 = 58.530 \)

The score for the AMO measure is calculated as shown below:

**Exhibit 12. Example AMO Measure Score after Benchmark Ratio Approach**

<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Raw Value</th>
<th>Measure Benchmark</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Monitoring for Persons on Long-term Opioid Therapy</td>
<td>0.4429901</td>
<td>0.391</td>
<td>91.463</td>
</tr>
</tbody>
</table>

Reporting Unit AMO Measure Score: \( \left( \frac{1 - 0.4429901}{1 - 0.391} \right) \times 100 = 91.463 \)

Under the Benchmark Ratio approach, a reporting unit receives a measure score of 100 when the reporting unit meets the target benchmark. Therefore, the Benchmark Ratio approach allows for the possibility of measure scores and, by extension, component level scores (e.g., global scores).
to surpass 100. To limit the impact of exceedingly high measure score(s) on the aggregated scores, measure rates will be capped at 110. CMS will continue to truncate measure score values under zero by applying a lower cap of zero on measure scores.

**STEP 4: CALCULATE SUMMARY INDICATOR SCORES**

CMS calculates summary indicator scores based on averages of measure scores. The steps are as follows:

1. **Determine if the summary indicator score can be calculated.** To calculate the summary indicator score, CMS uses the *half-scale rule* to determine if at least half (>50%) of the associated measures have a valid score. If the summary indicator score cannot be calculated, it will not receive a score (i.e., receives an invalid result of CSR-I).

2. **Calculate the summary indicator score.** If the summary indicator score can be calculated, CMS averages the available measure scores. An example using mock data is shown in Exhibit 13.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of QRS Component</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Care</td>
<td>Measure</td>
<td>59.227</td>
</tr>
<tr>
<td>Care Coordination</td>
<td>Measure</td>
<td>34.302</td>
</tr>
<tr>
<td>Rating of All Health Care</td>
<td>Measure</td>
<td>Not Calculated (NC)</td>
</tr>
<tr>
<td>Rating of Personal Doctor</td>
<td>Measure</td>
<td>Not Calculated (NC)</td>
</tr>
<tr>
<td>Rating of Specialist</td>
<td>Measure</td>
<td>44.062</td>
</tr>
<tr>
<td>Enrollee Experience</td>
<td>Summary Indicator</td>
<td>45.864 (Average of available measure scores)</td>
</tr>
</tbody>
</table>

**STEP 5: APPLY EXPLICIT WEIGHTS TO SUMMARY INDICATOR SCORES**

CMS will apply explicit weights at the summary indicator level when calculating QRS scores and ratings. CMS assigns a weight of 2/3 (66.67%) to the Clinical Quality Management summary indicator, and a weight of 1/6 (16.67%) to the Enrollee Experience and the Plan Efficiency, Affordability, & Management summary indicators. This weighting structure reflects the approximate percentage of measures in each summary indicator. Exhibit 14 includes an example of the application of the explicit weights to the summary indicator scores using mock data. CMS provides the unweighted summary indicator scores in the QRS Proof Sheets.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of QRS Component</th>
<th>Unweighted Score</th>
<th>Weight</th>
<th>Weighted Summary Indicator Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Quality Management</td>
<td>Summary Indicator</td>
<td>58.119</td>
<td>* .6667</td>
<td>38.748</td>
</tr>
<tr>
<td>Enrollee Experience</td>
<td>Summary Indicator</td>
<td>46.765</td>
<td>* .16665</td>
<td>7.793</td>
</tr>
<tr>
<td>Plan Efficiency, Affordability, and Management</td>
<td>Summary Indicator</td>
<td>57.803</td>
<td>* .16665</td>
<td>9.632</td>
</tr>
</tbody>
</table>

**STEP 6: CALCULATE GLOBAL SCORE**

CMS calculates the global score based on the sum of summary indicator scores. The steps for reporting units with three summary indicator scores are as follows:
1. **Determine if the global score can be calculated.** CMS calculates 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. If the global score cannot be calculated due to inability to pass this scoring rule, then the reporting unit receives the following invalid code:
   - **No Global (NG):** Insufficient data to calculate a global rating.

2. **Calculate the global score.** If the global score can be calculated according to the scoring rule described above, CMS sums the available weighted summary indicator scores. An example using mock data is shown in Exhibit 15.

   **Exhibit 15. Example Global Score Calculation**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of QRS Component</th>
<th>Example Weighted Summary Indicator Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Quality Management</td>
<td>Summary Indicator</td>
<td>38.748</td>
</tr>
<tr>
<td>Enrollee Experience</td>
<td>Summary Indicator</td>
<td>7.793</td>
</tr>
<tr>
<td>Plan Efficiency, Affordability, and Management</td>
<td>Summary Indicator</td>
<td>9.632</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td><strong>Global</strong></td>
<td><strong>56.173 (Sum of available summary indicator scores)</strong></td>
</tr>
</tbody>
</table>

   For reporting units with two summary indicator scores (i.e., Clinical Quality Management and either Enrollee Experience or Plan Efficiency, Affordability, and Management), CMS applies an 80% weight to the Clinical Quality Management summary indicator score and a 20% weight to the other scored summary indicator. CMS then sums the weighted scores to calculate the global score.

**STEP 7: CONVERT SCORES TO RATINGS**

CMS converts scores to ratings for the summary indicator and global components by following these steps:

After calculating scores for the summary indicator and global components, CMS uses cluster analysis of scores in combination with the jackknifing procedure (for global scores only), to create cut points for the summary indicator and global components individually. Cut points are numeric values that delineate the 5-star categories. These values are used to convert numeric scores into star ratings for the summary indicator and global hierarchy components. There are no cut points for measures as CMS does not calculate measure level ratings.

To identify cut point values, CMS uses a clustering analysis to take valid scores from each reporting unit and then group them together based on distance into five clusters for each summary indicator and global component individually. For the global component only, CMS then conducts a jackknife procedure to calculate QRS cut points using sub samples of data with one observation removed at a time (i.e., 1st data set has the 1st observation removed, 2nd data set...)

---

23 In scenarios where a reporting unit has only two valid summary indicator scores, CMS calculates the summary indicator weights by redistributing the weight assigned to the missing summary indicator, proportionally, based on the predefined explicit weights. The resulting summary indicator weights are, approximately, 80 percent for the S1 score and, approximately, 20 percent for the other S1 score.
has the 2nd observation removed). CMS conducts the clustering analysis for the summary indicator scores (i.e., four independent clustering runs). At the global level, CMS conducts the cluster analysis in combination with the jackknife procedure. The resulting data-driven cut points are different at each level of the hierarchy. Therefore, the summary indicator and global components each have its own set of four cut point values (to create five rating categories). In the QRS Proof Sheet, the cut point values are labeled 1 through 4, (e.g., Cut Point 1, reporting the threshold between 1-star ratings and 2-star rating).

Cut points have historically changed from year to year due to differences in submitted QRS measure data each year. CMS published the cut point values with the QRS scores and ratings in the preview reports and proof sheets during the QRS preview period.

STEP 11: ADJUST SUMMARY INDICATOR AND GLOBAL RATINGS

After applying the cut points and calculating 2022 ratings, CMS identifies any reporting units that experienced a reduction of more than one star compared to 2021. CMS adjusts the ratings for impacted reporting units such that no reporting unit’s rating decreases by more than one star. Adjustments applied to the summary indicator and global ratings will have no impact on underlying measure scores. Exhibit 16 offers an illustrative example of how CMS applies this rule.

<table>
<thead>
<tr>
<th>Reporting Unit</th>
<th>2021 Global Rating</th>
<th>Original 2022 Global Rating</th>
<th>Adjusted 2022 Global Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>12345-WV-HMO</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12345-PA-PPO</td>
<td>3</td>
<td>2</td>
<td>No adjustment</td>
</tr>
</tbody>
</table>

STEP 12. PRODUCE QRS RESULTS FOR PREVIEW AND FINALIZATION

The last step in applying the QRS rating methodology is creating a file (i.e., the Ratings Output File) for CMS internal use that contains all the QRS results for participating reporting units. Using this file, CMS produces a QRS Preview Report and QRS Proof Sheet for each reporting unit for QHP issuers to preview the results during the QRS preview period and reports for Exchange administrators (e.g., the Center for Consumer Information and Insurance Oversight [CCIIO], State-based Exchange [SBE] administrators, FFE state contacts). Within the HIOS-MQM website, states are only granted access to ratings information for QHP issuers operating within their state, and QHP issuers may only access ratings information for their respective reporting units.

Each October, CMS publishes Public Use Files (PUFs) with quality rating information. CMS releases a Nationwide Quality Rating System PUF that outlines underlying measure data (i.e., measure rates and denominators) as well as star ratings for all eligible reporting units, operating in all Exchange types, which received QRS star ratings for the plan year. CMS also releases the Quality PUF that includes star ratings assigned to plans that will be available on HealthCare.gov for the plan year.
Appendix A: Resources for Reviewing QHP Enrollee Survey Results

Exhibit 17 provides an overview of different resources through which QHP Enrollee Survey results are communicated to QHP issuers.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QHP Enrollee Survey Quality Improvement (QI) reports</td>
<td>These reports communicate the full results of the QHP Enrollee Survey, including questions not included as part of the QRS measure set. The raw frequencies for all QHP Enrollee Survey questions are included in the QHP Enrollee Survey QI Reports. CMS intends to release the QHP Enrollee Survey QI Reports concurrently with the QRS preview period via the HIOS-MQM website. The results shown in QHP Enrollee Survey QI Reports are produced after data cleaning and scoring procedures. First, the data used for these reports are cleaned according to standard CAHPS® rules. Second, the scores are weighted and case-mix adjusted using the CAHPS® Analysis Program (CAHPS® macro). Lastly, significance testing is conducted on the scores by comparison with the average from the full national QHP Enrollee Survey. This program, along with instructions for using it, are available at no cost at <a href="#">Instructions for Analyzing Data from CAHPS Surveys</a>. Please reference the QHP Enrollee Survey QI Reports Methodology Guide for additional information about the methodology behind the QHP Enrollee Survey QI Reports.</td>
</tr>
<tr>
<td>Qualified Health Plan Enrollee Survey Quality Improvement Reports Methodology Guide</td>
<td>CMS developed this report to provide the methodology for calculating the results of the QHP Enrollee Survey.</td>
</tr>
<tr>
<td>QRS survey measures (e.g., via QRS preview)</td>
<td>CMS-calculated results for the QRS include survey measures derived from a subset of questions in the QHP Enrollee Survey. The results in the QHP Enrollee Survey QI Reports differ from those reported for QRS survey measures as additional scoring specifications are used to calculate QRS survey measure results. QRS survey measure results are calculated via additional post-survey processing including case-mix adjustment, removal of invalid responses, and including appropriate respondents in the denominator totals.</td>
</tr>
<tr>
<td>Raw results provided by QHP Enrollee Survey vendors</td>
<td>The estimates provided by survey vendors are preliminary and are intended to provide QHP issuers with an early estimate of their survey scores. Survey vendors may not perform the same type of data cleaning performed by CMS. Additionally, survey vendors are unable to implement the identical case-mix adjustment that is performed by CMS because they do not have access to the full national dataset. A survey vendor may analyze the survey data in order to provide QHP issuers with aggregated results and may conduct additional analyses. These survey vendor analyses are not official survey results and should only be used for quality improvement purposes.</td>
</tr>
</tbody>
</table>

Detailed below is additional information regarding differences between QHP Enrollee Survey results communicated via the QHP Enrollee Survey QI Reports and QRS results communicated via the QRS Proof Sheet.

**QHP Enrollee Survey Composite versus QRS Survey Measure:** The questions included in QRS survey measures may be different than the questions included in “composites” shown in the QHP Enrollee Survey QI Reports.

**Denominator Size Calculation:** There is a difference in how CMS calculates and communicates the denominator size in the QHP Enrollee Survey QI Report versus the QRS Proof Sheet. QHP Enrollee Survey QI Reports include raw survey frequencies, meaning that the denominator size
reported for measures are equal to the total number of eligible respondents who answered the question. For the QRS, CMS calculates survey measures from survey questions using specific QRS scoring specifications. For the QRS, the total denominator size for QRS survey measures reflects the total number of respondents who have a non-missing value for at least one of the questions within the measure.

For example, the QRS measure *Care Coordination* is identical to the QHP Enrollee Survey QI Report composite Care Coordination. With 75 responses, the result for the Care Coordination composite would appear on the QI Reports; however, a *Care Coordinate* measure score would not appear in the QRS Proof Sheet as CMS did not calculate the score due to an insufficient denominator size (<100).

These differences stem from the different goals of the two reports. The QRS Proof Sheet is designed to communicate results for public reporting and, therefore, has distinct requirements associated with whether a measure can be reported; by comparison, the QHP Enrollee Survey QI Reports are currently designed as a tool to be used for quality improvements undertaken by the QHP issuer.

**Communicating Relative Performance:** The QHP Enrollee Survey QI Reports use a different approach to convey relative performance. This approach is based on a pair-wise t-test with an alpha of 0.05. Additional information can be found in the CAHPS® macro materials in Instructions for Analyzing Data from CAHPS® Surveys.

Due to these different approaches, there are instances when a reporting unit could score average or above average on QHP Enrollee Survey items in the QI Reports and receive one- or two-star ratings for certain QRS components.
## Appendix B: Key to Invalid Codes in the 2022 QRS Proof Sheet

### Exhibit 18. Key to Invalid Codes in the 2022 QRS Proof Sheet

<table>
<thead>
<tr>
<th>Code</th>
<th>QRS Measures – Codes for Non-numeric Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-NS</td>
<td>Measure Not Scored: Measure data not included in QRS scoring this year for all reporting units. Grey highlight to emphasize not included in scoring. Used in Standardized Score field.</td>
</tr>
<tr>
<td>NC</td>
<td>Not Calculated: Measure data not included in QRS scoring as the QHP issuer either received an invalid code for the measure (i.e., BR, NB, or NR) or the QHP issuer followed the measure specifications but the denominator was too small to report a valid rate. Used in Standardized Score field.</td>
</tr>
<tr>
<td>BR</td>
<td>Biased Rate: The QHP issuer’s calculated rate was materially biased. Used in Raw Value field.</td>
</tr>
<tr>
<td>NB</td>
<td>Benefit Not Offered: The QHP issuer did not offer the health benefit required by the measure. Used in Raw Value field.</td>
</tr>
<tr>
<td>NR</td>
<td>Not Reported: The QHP issuer chose not to report the measure or the measure rate was otherwise invalid (i.e., there is no valid rate because the denominator is zero). Used in Raw Value field.</td>
</tr>
</tbody>
</table>
| -    | Null value used for:  
|      | • Denominator field for measures that have an invalid rate (i.e., BR, NB, or NR). In the CSV version of the QRS Proof Sheet, this dash appears as a blank. |

<table>
<thead>
<tr>
<th>Code</th>
<th>QRS Hierarchy Components – Codes for Non-numeric Component Score or Rating (CSR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR-I</td>
<td>Insufficient data to calculate a score or rating according to the QRS rating methodology.</td>
</tr>
<tr>
<td>CSR-NS</td>
<td>Measure data for this component not included in QRS scoring this year for all reporting units. Grey highlight to emphasize not included in scoring.</td>
</tr>
<tr>
<td>NG</td>
<td>No Global: Insufficient data to calculate a global rating. This code applies to the global rating only.</td>
</tr>
</tbody>
</table>
Appendix C: Additional Details on the Contents of the 2022 QRS Proof Sheet

QRS Hierarchy Components: The QRS hierarchy is the organization of measures into summary indicators and a single global rating. The QRS Proof Sheet includes codes to indicate the level of the QRS hierarchy, as shown in Exhibit 19.

<table>
<thead>
<tr>
<th>Code</th>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-Sub-MI</td>
<td>Below Sub-Measure Indicator</td>
</tr>
<tr>
<td>Sub-MI</td>
<td>Sub-Measure Indicator (age stratifications)</td>
</tr>
<tr>
<td>MI</td>
<td>Measure Indicator</td>
</tr>
<tr>
<td>M</td>
<td>Measure</td>
</tr>
<tr>
<td>SI</td>
<td>Summary Indicator</td>
</tr>
<tr>
<td>Global</td>
<td>Global</td>
</tr>
</tbody>
</table>

Benchmarks: In the QRS Proof Sheet, CMS includes the following descriptive statistics: 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles, the mean, standard deviation, minimum, and maximum of the rates (raw values) across all valid reporting units for the measure (i.e., national reference group). To create these benchmarks, CMS uses only valid measure rates that have met the minimum denominator criteria and are scoring eligible. On any given measure, RUs that are not ratings-eligible or do not satisfy the measure-specific denominator criteria are excluded from these benchmark calculations. In addition, the measure-specific benchmark calculated under the Benchmark Ratio approach for scoring purposes (Section 4.3, Step 3) is included. Please note that the Public Use Files (PUF) for QRS includes all data, before the application of the denominator criteria. For reproduction of the estimates included in the QRS Proof Sheet, the denominator criteria for the respective measures must be applied before calculation of the summary statistics.

Decimal places and rounding: All QRS measure rates are reported at seven decimal places (rounded) upon data submission to CMS’ HIOS-MQM website. Beginning with the 2022 ratings year and incorporation of the Benchmark Ratio approach, measure scores will be rounded to three decimal places during the scoring process. In communicating QRS results, CMS uses the approach to decimal places and rounding as described in Exhibit 20.

<table>
<thead>
<tr>
<th>QRS Document</th>
<th>Type of QRS Result</th>
<th>Decimal Places and Rounding</th>
</tr>
</thead>
<tbody>
<tr>
<td>QRS Proof Sheet (PDF)</td>
<td>Rates/raw values and scores</td>
<td>Three decimal places, rounded.</td>
</tr>
<tr>
<td></td>
<td>Cut points</td>
<td>Two-digit integer.</td>
</tr>
<tr>
<td>QRS Proof Sheet (CSV file)</td>
<td>Rates/raw values and scores</td>
<td>All possible decimal places shared. There is a maximum length of 20 characters that can be displayed.</td>
</tr>
<tr>
<td></td>
<td>Cut points</td>
<td>Two-digit integer.</td>
</tr>
<tr>
<td></td>
<td>Benchmarks and other summary statistics</td>
<td>Three decimal places.</td>
</tr>
</tbody>
</table>
### Exhibit 21. Crosswalk of 2022 QHP Enrollee Survey Questions Included in the QRS

<table>
<thead>
<tr>
<th>2022 QRS Survey Measure</th>
<th>2022 QHP Enrollee Survey Composite</th>
<th>Question Number</th>
<th>Question Wording</th>
<th>Question Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Care</td>
<td>Getting Care Quickly</td>
<td>22</td>
<td>In the last 6 months, when you needed care right away, in an emergency room, doctor’s office, or clinic, how often did you get care as soon as you needed? Include in-person, telephone, or video appointments.</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23</td>
<td>In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor’s office or clinic as soon as you needed? Include in-person, telephone, or video appointments.</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td>Getting Needed Care</td>
<td></td>
<td>25</td>
<td>In the last 6 months, how often was it easy to get the care, tests, or treatment you needed? Include in-person, telephone, or video appointments.</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41</td>
<td>In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed? Include in-person, telephone, or video appointments.</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td>Access to Information</td>
<td>Access to Information</td>
<td>3</td>
<td>In the last 6 months, how often did the written materials or the Internet provide the information you needed about how your health plan works?</td>
<td>CAHPS® Health Plan 4.0 — Supplemental Items (HEDIS®)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>In the last 6 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment before you got it?</td>
<td>CAHPS® Health Plan 4.0 — Supplemental Items (HEDIS®)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>In the last 6 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medicines?</td>
<td>CAHPS® Health Plan 4.0 — Supplemental Items (HEDIS®)</td>
</tr>
<tr>
<td>Care Coordination</td>
<td>Care Coordination</td>
<td>33</td>
<td>When you visited your personal doctor for a scheduled appointment in the last 6 months, how often did he or she have your medical records or other information about your care? Include in-person, telephone, or video appointments.</td>
<td>CAHPS® Health Plan 5.0 — Supplemental Items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34</td>
<td>In the last 6 months, when your personal doctor ordered a blood test, x-ray, or other test for you, how often did someone from your personal doctor’s office follow up to give you those results?</td>
<td>CAHPS® Health Plan 5.0 — Supplemental Items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35</td>
<td>In the last 6 months, when your personal doctor ordered a blood test, x-ray, or other test for you, how often did you get those results as soon as you needed them?</td>
<td>CAHPS® Health Plan 5.0 — Supplemental Items</td>
</tr>
</tbody>
</table>

---

24 These items come from the National Committee for Quality Assurance (NCQA) HEDIS® CAHPS® Survey.
<table>
<thead>
<tr>
<th>2022 QRS Survey Measure</th>
<th>2022 QHP Enrollee Survey Composite</th>
<th>Question Number</th>
<th>Question Wording</th>
<th>Question Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Coordination (continued)</td>
<td>Care Coordination (continued)</td>
<td>43</td>
<td>In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from specialists?</td>
<td>CAHPS® Health Plan 5.0 — Supplemental Items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36</td>
<td>In the last 6 months, how often did you and your personal doctor talk about all the prescription medicines you were taking?</td>
<td>CAHPS® Health Plan 5.0 — Supplemental Items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>39</td>
<td>In the last 6 months, how often did you get the help that you needed from your personal doctor’s office to manage your care among these different providers and services?</td>
<td>CAHPS® Health Plan 5.0 — Supplemental Items</td>
</tr>
<tr>
<td>Plan Administration</td>
<td>Plan Administration</td>
<td>6</td>
<td>In the last 6 months, how often did your health plan’s customer service give you the information or help you needed?</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
<td>In the last 6 months, how often did your health plan’s customer service staff treat you with courtesy and respect?</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td></td>
<td>Single Item Measure (Plan Administration)</td>
<td>8</td>
<td>In the last 6 months, how often did the time that you waited to talk to your health plan’s customer service staff take longer than you expected?</td>
<td>New Question developed for QHP Enrollee Survey</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>In the last 6 months, how often were the forms from your health plan easy to fill out?</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>In the last 6 months, how often did the health plan explain the purpose of a form before you filled it out?</td>
<td>CAHPS® Health Plan 5.0 — Supplemental Items</td>
</tr>
<tr>
<td>Rating of all Health Care</td>
<td>Single Item Measure</td>
<td>27</td>
<td>Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months? Include in-person, telephone, or video appointments.</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td>Rating of Health Plan</td>
<td>Single Item Measure</td>
<td>20</td>
<td>Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan in the last 6 months?</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td>Rating of Personal Doctor</td>
<td>Single Item Measure</td>
<td>40</td>
<td>Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td>Rating of Specialist</td>
<td>Single Item Measure</td>
<td>44</td>
<td>We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?</td>
<td>CAHPS® Health Plan 5.0</td>
</tr>
<tr>
<td>Flu Vaccinations for Adults Ages 18–64</td>
<td>Single Item Measure (Preventive Services)</td>
<td>47</td>
<td>Have you had either a flu shot or flu spray in the nose since July 1, 2020?</td>
<td>CAHPS® 5.0H25 Survey</td>
</tr>
</tbody>
</table>

25 National Committee for Quality Assurance (NCQA) HEDIS® CAHPS® Survey.
<table>
<thead>
<tr>
<th>2022 QRS Survey Measure</th>
<th>2022 QHP Enrollee Survey Composite</th>
<th>Question Number</th>
<th>Question Wording</th>
<th>Question Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Assistance with Smoking and Tobacco Use Cessation</td>
<td>Single Item Measure (Preventive Services)</td>
<td>49</td>
<td>In the last 6 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?</td>
<td>CAHPS® 5.0H Survey</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
<td>In the last 6 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.</td>
<td>CAHPS® 5.0H Survey</td>
</tr>
<tr>
<td></td>
<td></td>
<td>51</td>
<td>In the last 6 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.</td>
<td>CAHPS® 5.0H Survey</td>
</tr>
</tbody>
</table>