Quality and Cost Assessments

Documentation
2018 Hospital and Surgery Center Cost Assessment

Methodology Overview Background:

The objective of HealthPartners’ hospital and surgery center cost assessment is to compare the cost of a facility including the inpatient and outpatient services provided. The overall cost index is case mix adjusted (DRG, APC, RVUs) and place of service case mix adjusted (IP vs. OP). The cost index for each facility is indexed to the aggregate 13 county metro Total Cost Index.

Criteria Applied to Analysis

2. Outliers excluded
3. Commercial product
4. COB admissions excluded
5. Paid amounts adjusted to 2017 contracts

13 County benchmark

1. Minnesota counties included in the benchmark – Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington and Wright
2. Wisconsin counties included in the benchmark – Pierce and St. Croix

Cost Assessment Methodology

1. Facility case mix is adjusted by DRG for inpatient admissions and APC and RVUs for outpatient visits.
2. The inpatient/outpatient case mix is adjusted by facility. (the cost index from IP and OP will be weighted by the percent of business in each component by facility)

Cost Assessment Details

1. Hospital admission and outpatient encounter service dates between 1/2016 and 12/2016
2. Outliers excluded
   - All admissions and outpatient encounters with TCI’s outside of the normal range are excluded
   - Admissions with a LOS outside the normal range for the same DRG are excluded
3. Commercial products included
   - Includes fully insured and self insured
4. COB admissions and encounters excluded
   - Only admissions and encounters that are paid 100% by HealthPartners are evaluated
5. Paid amounts adjusted to 2017 contracts
   - Prospectively price all major facilities to their 2017 contracts.
6. Facilities with a minimum of 30 inpatient admissions or 200 outpatient encounters are evaluated
2018 Primary Care Cost Assessments

Cost Assessment Methodology Overview

Based on NQF endorsed Total Cost of Care Measure

1. Only providers that meet minimum number of attributed members are included.
2. Providers with less than minimum number of attributed members are excluded, and follow default rules.
3. Cost tier placement is based on the provider specific risk adjusted PMPM indexed against the overall risk adjusted PMPM for all 13-county metro primary care providers.

Criteria Applied to Analysis

1. Attributed Provider
2. Outlier members truncated
3. ACG Risk adjustment applied
4. Paid amounts adjusted to 2017 contract rates
5. Commercial product only
6. Claims dates between January 2016 and December 2016
7. Babies age less than one and members 65 and over are excluded
8. Members must be continuously enrolled for a minimum of 9 months to be included

13 County benchmark

1. Minnesota counties included in the benchmark – Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington and Wright
2. Wisconsin counties included in the benchmark – Pierce and St. Croix

Further explanations of the above criteria:

1. Attributed Provider
   A member is assigned to a medical group that provides the majority of the primary care office visits
   • Office visits are identified through the place of service code that indicates a clinic site (11, 50)
   • Primary care specialty is determined by the servicing physician
   • Primary care specialties include: family practice, internal medicine, pediatrics, geriatrics, nurse practitioner, physician assistant and OB/GYN
   • Individuals that do not have a primary care office visit are excluded

2. Outlier members truncated
   • A member’s combined medical and pharmacy costs are truncated at $125,000

3. ACG Risk adjustment
   • Adjusted Clinical Groups (or ACGs) were developed by Johns Hopkins University and allow comparisons between populations with varying illness burdens.
   • A member’s medical claims are ACG risk adjusted based on diagnoses, age, and gender
2018 Specialty Cost Assessments

Cost Assessment Methodology Overview

1. Only providers that meet minimum number of episodes requirement are included.
2. Providers with less than minimum number of episodes are excluded, and follow default rules.
3. Cost evaluation is based on the provider specific indexed TCI against the overall TCI for all 13-county metro providers.

Specialties Evaluated for Tiering

1. Cardiology
2. Orthopedics
3. ENT
4. OB/GYN

Specialties Evaluated for Transparency

1. Allergy & Immunology
2. Dermatology
3. Endocrinology
4. Gastroenterology
5. Neurology
6. Podiatry
7. Pulmonary Medicine
8. Rheumatology
9. Surgery
10. Urology

Criteria Applied to Analysis

1. Paid amounts adjusted to 2017 contract rates
2. Cost evaluation methodology
3. Significant Contributor
4. Chronic/acute case mix adjustment applied
6. Outlier episodes removed
7. Completed episodes
8. Commercial product
9. Continuously enrolled members only
10. Rx Proxy applied
11. Patient-Centered outliers
12. Provider/Specialty ETG threshold
13. ETG Severity Risk Adjusted
14. Trauma/transplant episodes removed

13 County benchmark

1. Minnesota counties included in the benchmark – Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington and Wright
2. Wisconsin counties included in the benchmark – Pierce and St. Croix
Further explanation of the criteria:

1. Paid amounts adjusted to 2017 contract rates
   - Prospectively priced all claims to their 2017 contracts

2. Cost evaluation methodology
   - The episode grouper creates clinically homogenous events (conditions/procedures) that are risk adjusted allowing for a provider's cost experience to be compared to a benchmark
   - The benchmark is created by specialty and condition/procedures using a peer group that is similar to the provider being measured
   - The resulting comparison is an actual to expected value that presents as a cost index relative to the peer group average.

3. Significant Contributor
   - HealthPartners assigns providers to episodes where the provider represents 25% or greater of the management or surgery resources within a given specialty. Resources are defined as HealthPartners' Total Care Relative Resource Value rather than actual paid as the TCRRV are not influenced by contracted rates and is a fair comparison.
   - The provider must have 25% of the Management and Surgery TCRRV to be attributed the episode (this is industry standard)
   - Multiple provider groups can be the significant contributor on the same episode (up to 4 providers, 25% each)
   - Some specialties do not direct the management of care, therefore they cannot be significant contributors (i.e. Anesthesiology, Radiology, etc.)

4. Chronic/Acute Case Mix Adjustment
   - A factor was generated to weight the ETGs based on their level of completeness to effectively evaluate a provider’s true case mix of services delivered.
   - The factor is applied to the number of episodes, actual paid amount & the expected paid amount.
   - This factor adjusts the impact an ETG’s TCI has on aggregate TCI.


6. Outlier episodes removed
   - Episodes are excluded where the total medical costs are not within the predefined trim points.

7. Completed Episodes
   - An episode is considered complete when there is an absence of treatment through a “clean period”

8. Commercial product
   - Includes fully and self insured

9. Continuously enrolled members only
   - Member must have coverage for the duration of the episode

10. Rx Proxy applied
    - A network average Rx cost is applied for episodes where employers carve out pharmacy benefit

11. Patient-Centered outliers
    - Removed any patient who had 12 or more ETGs in the evaluation period

12. Provider ETG Threshold
    - A provider must have 10 or more episodes within an ETG for that ETG to be included in their profile

13. ETG Severity Risk Adjusted
    - Episodes are risk adjusted to account for patient’s full illness burden

14. Trauma and transplant episodes removed
    - Trauma episodes are defined by the presence of a trauma DRG and are excluded
    - Patients that have had or are scheduled for a transplant are excluded
Principles for Assessing Primary Care/Specialty and Hospital Quality Performance

Quality assessments are conducted based upon the following over-arching principals:

- Performance assessment should represent a reasonable cross section of conditions or procedures within the usual scope of practice.
- Performance assessment should sufficiently reflect the spectrum of care (e.g., prevention and health promotion, chronic illness, acute care and procedures (diagnostic and surgical).
- Performance assessment should be assessed using a sufficient combination of cost/efficiency, patient experience, process, structural, and risk-adjusted outcome measures.
- Performance assessment set of metrics should reflect multiple available data sources to incorporate all perspectives and viewpoints (external, internal, chart, admin, hybrid, self-report, patient exp, etc).
- Quality domains should reflect the strength and breadth of the underlying measures and scope of practice of the provider.
- The significance and comparative performance benchmarks as calculated by external measurement organizations will be leveraged for determining performance. This means comparative groups will vary by measure.
- Performance assessments should be shared with the physicians or hospitals prior to public reporting with a reasonable comment period to address any provider concerns.
- Significant provider and member feedback & complaints should be addressed within a reasonable time period.
- Complete descriptions of all measures, criteria, algorithms, methodologies, and data sources should be made available to all stakeholders.
- Physicians and consumer’s feedback and collaboration regarding the design, selection of measures, methodology, and display formats will be considered through appropriate advisory and collaboration forums.

Measure Inclusion in Quality Assessment scoring

Measures are selected for Quality Assessments based upon the following measurement selection principles:

- Measures selected should represent a reasonable cross section of conditions or procedures within the usual scope of practice of a provider group or hospital.
- Measures selected should have followed HealthPartners’ Measurement Development Policy reflecting reliable, valid based on sound scientific evidence, and accurate and timely as possible.
- Measures should be based on where there has been consensus among stakeholders and when possible, predictive of overall quality performance.
- Measures should be important and relevant to stakeholders, including physicians, consumers, health plans, and purchasers.
- Measures should reflect appropriateness and/or processes of care that provider groups or hospitals can influence or impact.
- As available, measures selected should be endorsed by nationally or locally recognized quality measurement organizations such as NQF, AQA, ACC, ICSI, MNCM, etc. HealthPartners will supplement with internally developed or provider self-reported measures.
- Measures of appropriateness of care should be utilized whenever possible.
Provider Inclusion in Quality Assessment Scoring

Providers are included in quality assessment scoring if they meet the following criteria:

- Obstetrics and Gynecology Providers must have at least 600 episodes
- Other specialty care providers must have at least 300 episodes
- Providers that primarily serve PMAP members are excluded
- Providers’ scope of services should be representative of the specialty being assessed
- Members must have direct access to the provider
- Measurement results for the provider must represent the spectrum of quality domains (clusters) defined for each specialty.
  - Providers must have at least 50% of available measures within a quality domain in order for the domain to be included in their overall quality assessment. For clusters that have a break between child and adult measures – the quality domain will be included if the provider has 50% of Adult measures, 50% of pediatric measures, or a 50% combination between adult and pediatric measures. For hospitals, the Helping Patients Get Better cluster is broken down into 7 sub-clusters. Critical access hospitals must have 50% of available measures within 3 of the 7 sub-clusters in order for the domain to be included and acute care hospital must have 4 of the 7 sub-clusters.
  - Providers must have quality domains representing at least 40% of the total quality domain weights in order to calculate an overall quality assessment score/tier placement.

Provider Mergers

- Due to the fact that measurement & system changes typically lag & require time to reflect merged providers, adjustments to cost and quality measures may need to be accommodated to provide the most accurate profiles.
  - Historical mergers -- Quality assessments will be calculated separately for each merged entity, and then weighted based on percentage of business and combined for their final quality assessment. When one of the merged providers lacks sufficient quality measures to be scored, the remaining provider’s quality assessment will represent the merged entities’ quality performance. In some cases system limitations may only allow for the display of one set of cost/quality data for a merged provider. In this case, the larger entities information will be displayed.
  - Current Mergers – Quality assessments will be calculated based on an 80/20 rule. If one provider under the new merger accounts for 80% of the business, that provider’s quality assessment will be used. Otherwise “historical merger” rules will be applied.
Individual Measure Scoring

Sampled Population Measures

- A sampled measure is a measure based on a subset of a population. This is done when measuring the full population is not possible or impractical.
- Examples of sampled measures:
  - Preventive Services - Adult (sourced from HealthPartners Clinical Indicators Report;)
  - High Blood Pressure (sourced from Minnesota Community Measurement)
- Performance Level Scoring:
  - Confidence intervals for sampled measures are leverages when determining performance level scoring.
  - Score assignments for sampled measures are as follows:
    - Significantly above quality target threshold = 1 point
    - Not significantly above or below quality target threshold = 0.5 points
    - Significantly below quality target threshold = 0 points

Full-Population Measures

- Significance is not appropriate for full-population measures since no error rate is introduced due to sampling. Each measure is individually reviewed to determine provider performance levels; 1) high performer, 2) solid performer, or 3) lower performer.
- Performance Level Scoring:
  - Providers are assigned a score based on their performance to set quality threshold(s).
  - Score assignments for full-population measures are as follows:
    - Above top quality target = 1 point
    - Between top and bottom quality targets = 0.5 points
    - Below bottom quality target = 0 points

Clustering & Weighting

- All measures are clustered into meaningful categories (quality domains) that closely align with NCQA and NQF categories. Categorizing measures into clusters balances a provider’s performance across a spectrum of care. For Primary Care the following quality domain clusters were utilized:
  - Patient Experience: Getting Care and Information
  - Patient Experience: Care and Communication
  - Staying Healthy and Care for Illness
  - Care for Chronic Conditions
  - Health Information Technology and Generic Prescribing
- In general, measures all have equal weights (1.0). However, it is possible for new measures, or topically similar measures to be weighted differently in specific circumstances. In some cases this is done to essentially composite several measures into one with a total weight of 1.0.
  - In 2018, the following measures had special weights assigned:
    - Depression PHQ9 Utilization - 0.14285 (1/7)
    - Depression PHQ9 Follow up Utilization at 6 months - 0.14285 (1/7)
    - Depression PHQ9 Follow up Utilization at 12 months - 0.14285 (1/7)
    - Depression Remission at 6 Months – 0.14285 (1/7)
    - Depression Response at 6 Months – 0.14285 (1/7)
    - Depression Remission at 12 Months – 0.14285 (1/7)
    - Depression Response at 12 Months – 0.14285 (1/7)
    - Health IT: Utilization: use of EHR decision support tools – 0.333(1/3)
    - Health IT: Utilization: activities using EHR data – 0.333 (1/3)
    - Health IT: Exchange: sending and receiving information – 0.333 (1/3)
    - Safety: Assessment Survey: Safety culture – 0.125 (1/8)
    - Safety: Assessment Survey: Safe use of sample medications – 0.125 (1/8)
Safety: Assessment Survey: Safe use of anticoagulation medications – 0.125 (1/8)
Safety: Assessment Survey: Safe use of abbreviations – 0.125 (1/8)
Safety: Assessment Survey: Refilling medications safely – 0.125 (1/8)
Safety: Assessment Survey: Controlled substances – 0.125 (1/8)
Safety: Medication explanations – 0.125 (1/8)
Safety: Medication side effects explanations – 0.125 (1/8)
MNCM OB Screening Measures: Chlamydia screening – 0.333 (1/3)
MNCM OB Screening Measures: Cervical cancer screening – 0.333 (1/3)
MNCM OB Screening Measures: Breast cancer screening – 0.333 (1/3)
Pregnancy Mgmt: Screening for hepatitis – 0.333 (1/3)
Pregnancy Mgmt: Screening for chlamydia – 0.333 (1/3)
Pregnancy Mgmt: Screening for syphilis – 0.333 (1/3)
Pregnancy Mgmt: No category D medications – 0.5 (1/2)
Pregnancy Mgmt: No category X medications – 0.5 (1/2)
Hospital blood clot process measures – each weighted 0.166 (1/6)
Hospital stroke care process measures – each weighted 0.125 (1/8)
Hospital surgical procedure specific major, moderate, and minor complications measures – each weighted 0.333 (1/3)
Hospital surgical care infection prevention measures each weighted 0.333 (1/3)
Hospital delivery with and without instrument measures each weighted 0.5 (1/2)

In the event that a provider is missing one or more of the specially weighted measures, the measure weights of the measure present re-calibrate to a weighting that adds to 1. For example, if a provider is missing the MNCM chlamydia screening measure, the weight assigned to the MNCM cervical and breast cancer screening measures would be 1/2 each instead of 1/3.

**Decimal Rules**

- All calculations used in Quality Assessments will be rounded until the quality assessments are determined. Final quality assessment indices will be truncated at 3-decimals. Tier assignments will only be applied after the truncation has occurred.

**Quality Tier Definitions**

- The following tier definitions will be used to designate providers as tier 1 or tier 2 for quality. These may be adjusted by specialty to account for other factors such as member access.
  - **2 Tier Model**
    - Tier 1: Overall Quality Index >= 1.000
    - Tier 2: Overall Quality Index < 1.000
  - **3 Tier Model**
    - Tier 1: Overall Quality Index >= 1.000
    - Tier 2: Overall Quality Index >= 0.5 and < 1.000
    - Tier 3: Overall Quality Index < 0.5
Principles for Determining Provider/Hospital Benefit Levels/Tiers

Final Tier placements are determined based upon the following over-arching principals:

- Cost and quality must be available at the comparative specialty level (e.g., hospital, primary care, cardiology, orthopedics, OB/GYN and ENT) for tiering application.
- In general, better than average quality and cost performance is required to achieve tier 1 placement.
- Cost determines tier placement when provider volume in quality measures is not sufficient for comparative assessments.
- Tier placements may be adjusted due to access concerns related to geographic location and capacity. To avoid barriers to preventive services for Primary & OB/GYN care, a reasonable proportional split of historic episodes will help serve as a guide when considering tier adjustments.
- Public displays for consumer transparency will illustrate actual performance regardless of Tier placement.
- Employer groups may customize HealthPartner’s standard Tier placements.
- Tier placements may be adjusted to recognize highly-specialized providers/facilities serving unique populations or conditions/procedures.

Final Tier Definitions

- 2 Tier Method- All specialties and hospital Tier 1 determined by average and better cost & quality (index TCI <=1 for cost and index Quality Index => 1 for quality)
- 3 Tier Methodology
  - Primary Care, OB/GYN, Hospital
    - Tier 1 determined by TCI <= 1, QI => 1
    - Tier 2 determined by TCI <= 1.05, QI => 0.5
    - Tier 3 determined by TCI > 1.05, QI < 0.5
  - All other specialties
    - Tier 1 determined by TCI <= 0.95, QI => 1
    - Tier 2 determined by TCI <= 1.05, QI => 0.5
    - Tier 3 determined by TCI > 1.05, QI < 0.5

Geographic Assessment

The east/west geographic distribution of Tier 1 providers is assessed to ensure reasonable access to Tier 1 providers by specialty and hospital. If there is limited access to Tier 1 providers, additional providers may be moved into Tier 1 using the following process:

- Only providers that meet the quality requirements to be eligible for Tier 1 are considered
- Of these providers, identify the provider in the geographic area that has the next best TCI— this provider would be moved into Tier 1.
- Identify any providers outside of the geographic area that have a TCI better than the group moving into Tier 1 and meet the quality requirements to be eligible for Tier 1. These identified groups would be moved into Tier 1 as well.
2018 Metro Hospital Quality Scoring Specifics and Example:

Steps (1 – 4):

1. Selected measures that represent a broad domain of quality
   - Centers for Medicare and Medicaid Services Outcomes Measures
   - Minnesota Community Measurement/Minnesota Hospital Association
   - Centers for Medicare and Medicaid Services HCAHPS Patient Satisfaction (experience) Surveys
   - HealthPartners surgical procedure specific complications measures

2. For each of the measures, determine if the hospital was at threshold, or significantly above or below.

CMS HCAHPS measures
   - Scoring based on thresholds using the linear average:
   - Thresholds are informed by CMS star assignment groupings

CMS mortality and readmissions measures
   - Scoring based on significance to thresholds
   - Thresholds are informed by the regional distribution of hospital performance

CMS process of care measures
   - Scoring based on performance rate thresholds

HealthPartners complications measures
   - Scoring based on significance to thresholds
   - Thresholds are informed by 2 standard deviations from the mean over the prior two measurement cycles

MNCM AHRQ volume measures
   - Scoring based on thresholds using # of procedures
   - Thresholds informed by AHRQ proficiency levels

MNCM AHRQ significance measures
   - Scoring based on significance to actual to expected rates
   - Actual and expected rates are hospital specific

See appendix for hospital measure targets

3. Group measures into logical clusters or domains
   - Patient Experience
   - Helping Patients Get Better
     - Heart Care
     - Lung Care
     - OB Care
     - Stroke Care
     - Orthopedic Care
     - General Surgery
     - Safety

4. For each domain, calculate a quality score.
   - A quality score is obtained by assigning a point value to each individual measure results within a quality domain based on significance.
   - Below Threshold = 0 pts, At Threshold = 0.5 pts, Above Threshold = 1 pt
   - The total number of points within each quality domain is calculated for each provider
   - The total number of points for each cluster is divided by the total number of measures to produce the providers’ actual to expected quality domain score
Example for Hospital #1

Individual Measure Performance by Cluster:

<table>
<thead>
<tr>
<th>Measures in Cluster/Sub Cluster</th>
<th>LCL/Rate/UCL</th>
<th>Threshold(s)</th>
<th>Symbol</th>
<th>Actual Point Value</th>
<th>Expected</th>
<th>Actual to Expected Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Bypass Surgery</td>
<td>90</td>
<td>200/100</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1.5/3</td>
</tr>
<tr>
<td>Heart Attack Mortality</td>
<td>14.5%/18%/20.5%</td>
<td>18%</td>
<td>0.5</td>
<td>1</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Heart Attack Readmissions</td>
<td>13%/16.5%/20%</td>
<td>22%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.5</td>
<td>3</td>
</tr>
</tbody>
</table>

1. Weight the Actual to Expected score for each quality domain by the cluster domain weight.

<table>
<thead>
<tr>
<th>Quality Domain</th>
<th>Weighting</th>
<th>Actual to Expected Score</th>
<th>Weighted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Experience</td>
<td>50%</td>
<td>0.80</td>
<td>0.40</td>
</tr>
<tr>
<td>Helping Patients Get Better</td>
<td>50%</td>
<td>0.616</td>
<td>0.308</td>
</tr>
<tr>
<td>• Heart Care</td>
<td>12.5%</td>
<td>0.55</td>
<td>0.155</td>
</tr>
<tr>
<td>• Lung Care</td>
<td>12.5%</td>
<td>0.50</td>
<td>0.125</td>
</tr>
<tr>
<td>• OB Care</td>
<td>12.5%</td>
<td>0.667</td>
<td>0.167</td>
</tr>
<tr>
<td>• Safety</td>
<td>12.5%</td>
<td>0.75</td>
<td>0.188</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>0.708</td>
</tr>
</tbody>
</table>

2. Calculate an overall quality index relative to the quality threshold for each hospital.

- Since scoring at threshold on all measures always equates to a 0.5 score, dividing the total weighted quality domain scores by 0.5 creates an overall quality index relative to the aggregate quality threshold. Using this, providers’ scores represent a percent above or below threshold performance. Therefore, a score of 1.136 reflects 13.6% better than threshold performance.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Total Weighted Score</th>
<th>Threshold</th>
<th>Quality Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital #1</td>
<td>0.708</td>
<td>0.5</td>
<td>0.708/0.5 = 1.416</td>
</tr>
<tr>
<td>Hospital #2</td>
<td>0.500</td>
<td>0.5</td>
<td>0.5/0.5 = 1.000</td>
</tr>
</tbody>
</table>

3. Create quality tiers based on performance relative to threshold – as defined in the Quality Tiers Definitions section of this document.

4. Final tier placement is a function of cost and quality – as defined in the Final Tier Definitions section of this document.
1. **Selected quality measures that represent a broad domain of quality**
   - HealthPartners Clinical Indicators Report
   - Minnesota Community Measurement
   - Patient Experience
   - Several measures are composites.
   - For some measures where a composite is not available, individual components were equally weighted to produce a composite equivalent.
     - For the three Minnesota Community Measurement Health IT Survey measures – each component measure is weighted 1/3rd
     - The six safety assessment survey measures and two medication safety measures – each weighted 1/8th
     - Minnesota Community Measurement Depression care measures – each weighted 1/7th.

2. **For each of the measures, determine if the medical group was at threshold, or significantly above or below.**

3. **Group measures into logical clusters or domains**
   - Getting Care
   - Care and Communication
   - Care for Chronic Illness
   - Staying Healthy and Care for Illness
   - Health Information Tech and Generic Prescribing

4. **For each domain, calculate a quality score.**
   - A quality score is obtained by assigning a point value to each individual measure result within a quality domain based on significance.
   - Below Threshold = 0 pts, At Threshold = 0.5 pts, Above Threshold = 1 pt
   - The total number of points within each quality domain is calculated for each provider
   - The total number of points for each quality domain is divided by the total number of measures to produce the providers’ actual to expected quality domain score

**Example for Medical Group #1**

<table>
<thead>
<tr>
<th>Care for Chronic Conditions</th>
<th>UCL/Rate/LCL</th>
<th>Threshold(s)</th>
<th>Symbol</th>
<th>Actual Point Value</th>
<th>Expected</th>
<th>Actual to Expected Points Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal Vascular</td>
<td>62.5%/60.0%/56.5%</td>
<td>50%</td>
<td><img src="#" alt="Green" /></td>
<td>1</td>
<td>1</td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td>Optimal Diabetes</td>
<td>42%/40%/38%</td>
<td>40%</td>
<td><img src="#" alt="Blue" /></td>
<td>0.5</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>High Blood Pressure</td>
<td>90%/85%/80%</td>
<td>75%</td>
<td><img src="#" alt="Green" /></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Diabetic Eye Exam</td>
<td>55%</td>
<td>60/50%</td>
<td><img src="#" alt="Blue" /></td>
<td>0.5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Use of Spirometry for COPD</td>
<td>55%/50%/45%</td>
<td>40%</td>
<td><img src="#" alt="Green" /></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
5. **Weight the Actual to Expected score for each quality domain by the cluster domain weight.**
   - Each cluster can be weighted differently
   - Since scoring at threshold on all measures always equates to a 0.5 score, dividing the actual to expected score by 0.5 creates a quality index relative to the aggregate cluster quality threshold. Using this, providers’ scores represent a percent above or below threshold. Therefore, an index of 1.092 reflects 9.2% better than threshold performance.
   - Weighting for Primary Care

<table>
<thead>
<tr>
<th>Quality Domain</th>
<th>Weighting</th>
<th>Actual to Expected Score</th>
<th>Weighted Actual to Expected Score</th>
<th>Threshold</th>
<th>Quality Domain Index</th>
<th>Weighted Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting Care and Information</td>
<td>10%</td>
<td>0.750</td>
<td>0.075</td>
<td>0.5</td>
<td>1.500</td>
<td>0.15</td>
</tr>
<tr>
<td>Care and Communication</td>
<td>10%</td>
<td>0.800</td>
<td>0.08</td>
<td>0.5</td>
<td>1.600</td>
<td>0.16</td>
</tr>
<tr>
<td>Staying Healthy and Care for Illness</td>
<td>20%</td>
<td>0.556</td>
<td>0.111</td>
<td>0.5</td>
<td>1.112</td>
<td>0.222</td>
</tr>
<tr>
<td>Care for Chronic Conditions</td>
<td>40%</td>
<td>0.500</td>
<td>0.2</td>
<td>0.5</td>
<td>1.000</td>
<td>0.400</td>
</tr>
<tr>
<td>Health Information Tech &amp; Generic Prescribing</td>
<td>20%</td>
<td>0.400</td>
<td>0.08</td>
<td>0.5</td>
<td>0.800</td>
<td>0.16</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.546</td>
<td></td>
<td></td>
<td>1.092</td>
<td></td>
</tr>
</tbody>
</table>

6. **Calculate an overall quality index relative to the quality threshold for each provider.**
   - Since scoring at threshold on all measures always equates to a 0.5 score, dividing the total weighted quality domain scores by 0.5 creates an overall quality index relative to the aggregate quality threshold. Using this, providers’ scores represent a percent above or below threshold. Therefore, a score of 1.092 reflects 9.2% better than threshold performance.

<table>
<thead>
<tr>
<th>Provider</th>
<th>Total Weighted Score</th>
<th>Threshold</th>
<th>Quality Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Group #1</td>
<td>0.546</td>
<td>0.5</td>
<td>0.546/0.5 = 1.092</td>
</tr>
<tr>
<td>Medical Group #2</td>
<td>0.500</td>
<td>0.5</td>
<td>0.5/0.5 = 1.000</td>
</tr>
</tbody>
</table>

7. **Create quality tiers based on performance relative to threshold – as defined in the Quality Tiers Definitions section of this document.**

8. **Final tier placement is a function of cost and quality – as defined in the Final Tier Definitions section of this document.**
2018 Star/Dollar-Assignment Methodology

Star/Dollar-Assignment Methodology

**Description** – Overall quality star rating are only calculated for Primary Care providers and Hospitals. Overall quality star ratings are not calculated for the Cardiology, ENT, Obstetrics and Gynecology, and Orthopedics specialties. In addition:

- Providers must have at least 50% of available measures within a quality domain in order for a star assignment to be calculated. For clusters that have a break between child and adult measures – the quality domain star rating will be calculated if the provider has 50% of Adult measures, 50% of pediatric measures, or a 50% combination between adult and pediatric measures.
- Providers must have star ratings in all Primary care or Hospital quality domains in order to calculate an overall quality star rating.

**Thresholds** – Star assignment performance levels are set such that a provider must have 1/2 of their measures within a quality domain above threshold with the other 1/2 at threshold to achieve a 4 star rating. To achieve a 1 star rating a provider must have greater than 1/2 of their measures below threshold with the remaining measures at threshold. For the overall quality star assignment rating, the total weighted quality score is used against this same scale.

### Example of Quality Star Rating Calculations

<table>
<thead>
<tr>
<th>Quality Domain</th>
<th>Quality Index</th>
<th>Quality Domain Star Rating</th>
<th>Weighting</th>
<th>Weighted Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting Care and Information</td>
<td>1.50</td>
<td>1.50 &lt;= 1.50 &lt; 2.0 = ⭐⭐⭐⭐⭐</td>
<td>10%</td>
<td>0.15</td>
</tr>
<tr>
<td>Care and Communication</td>
<td>1.60</td>
<td>1.50 &lt;= 1.600 &lt; 2.0 = ⭐⭐⭐⭐⭐⭐</td>
<td>10%</td>
<td>0.16</td>
</tr>
<tr>
<td>Staying Healthy and Care for Illness</td>
<td>1.112</td>
<td>1.0 &lt;= 1.112 &lt; 1.50 = ⭐⭐⭐</td>
<td>20%</td>
<td>0.222</td>
</tr>
<tr>
<td>Care for Chronic Conditions</td>
<td>1.00</td>
<td>1.0 &lt;= 1.00 &lt; 1.50 = ⭐⭐⭐⭐</td>
<td>40%</td>
<td>0.40</td>
</tr>
<tr>
<td>Health Information Tech &amp; Generic Prescribing</td>
<td>0.800</td>
<td>0.50 &lt;= 0.800 &lt; 1.0 = ⭐⭐</td>
<td>20%</td>
<td>0.160</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>1.092</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Weighted Quality Domain Indices</th>
<th>Overall Quality Star Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.092</td>
<td>1.0 &lt;= 1.092 &lt; 1.50 = ⭐⭐⭐</td>
</tr>
</tbody>
</table>
Dollar Ratings Description – For 2018, overall dollar sign ratings are calculated for Primary Care, Cardiology, ENT, Obstetrics and Gynecology, and Orthopedics specialties, and Hospitals and Surgery Centers. Dollar sign ratings are based on each provider’s TCI within each specialty compared to set thresholds as described below.

Thresholds – Dollar ratings are assigned as follows.

<table>
<thead>
<tr>
<th>Total Cost Index (TCI)</th>
<th>Dollar Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCI &lt; 0.90</td>
<td>$</td>
</tr>
<tr>
<td>0.90 &lt;= TCI &lt; 1.0</td>
<td>$$</td>
</tr>
<tr>
<td>1.0 &lt;= TCI &lt; 1.1</td>
<td>$$$</td>
</tr>
<tr>
<td>TCI &gt;= 1.10</td>
<td>$$$$</td>
</tr>
</tbody>
</table>
Quality and Cost Assessments

Measures and Clusters
Primary Care Quality Measures

Patient Experience
(20%)

Getting Care and Information
(10%) Adult & Child Surveys

- Convenient appointments\(^1,2\)
- Seeing the doctor of your choice\(^1,2\)
- Getting an appointment for routine care\(^1,2\)
- Getting an appointment for illness or injury\(^1,2\)
- Waiting in the reception area\(^1,2\)
- Waiting in the exam room\(^1,2\)
- Information by phone during clinic hours\(^1,2\)
- Information by phone after clinic hours\(^1,2\)

Care and Communication
(10%) Adult & Child Surveys

- How well doctor and staff listen\(^1,2\)
- Time with the doctor\(^1,2\)
- Explanations about tests or procedures\(^1,2\)
- Willing to recommend\(^1,2\)

Medications
- Prescribing generic medications\(^3\)
- Explanations about medications\(^3\)
- Explanations about medication side effects\(^1\)

Health IT & Generic Prescribing
(20%)

Health IT:
- Utilization: Using EHR decision support tools\(^8\)
- Utilization: Activities using EHR data\(^8\)
- Exchange: Sending and Receiving info\(^8\)

Safety Assessment Survey:
- Safety culture\(^9\)
- Safe use of sample medications\(^9\)
- Safe use of anticoagulation medications\(^9\)
- Safe use of abbreviations\(^9\)
- Refilling medications safely\(^9\)
- Controlled substances\(^9\)

Clinical Quality
(60%)

Staying Healthy and Care for Illness (20%)

- Adult: Preventive care\(^3\)
- Adult: Breast cancer screening\(^4\)
- Adult: Chlamydia screening\(^4\)
- Adult: Cervical cancer screening\(^4\)
- Adult: Alcohol Assessment\(^3\)
- Adult: Healthy weight\(^3\)
- Adult: Care for back pain\(^7\)
- Adult: Colorectal Cancer Screening\(^5\)
- Adult: Monitoring high blood pressure medications\(^6\)
- Adult: Monitoring diuretic medications\(^6\)
- Adult: Care for bronchitis\(^4\)
- Child: Preventive care\(^3\)
- Child: Immunizations\(^4\)
- Child: Healthy weight plotted or percentile\(^3\)
- Child: Care for a cold\(^4\)
- Child: Care for a sore throat\(^4\)
- Child: Follow up visit following ADHD medication\(^4\)
- Adolescent Immunization\(^4\)

Care for Chronic Conditions (40%)

- Depression PHQ9 Utilization\(^5\)
- Depression PHQ9 6 month follow up\(^5\)
- Depression PHQ9 12 month follow up\(^5\)
- Depression remission at 6 months\(^5\)
- Depression remission at 12 months\(^5\)
- Depression response at 6 months\(^5\)
- Depression response at 12 months\(^5\)
- Optimal Diabetes\(^5\)
- Diabetic Eye Exam\(^3\)
- Optimal Vascular disease\(^5\)
- COPD breathing tests\(^5\)
- High blood pressure\(^4\)
- Adult: Optimal asthma care\(^5\)
- Child: Optimal asthma care\(^5\)

Sources:
1. HealthPartners Consumer Choice Adult Survey
2. HealthPartners Consumer Choice Child Survey
3. HealthPartners Clinical Indicators Report
4. Minnesota Community Measurement Health Care Quality Report
5. Minnesota Community Measurement Direct Data Submission Results
6. HealthPartners Annual Monitoring for Patients on Persistent Medications
7. HealthPartners Acute Low Back Pain Composite Measure
8. Minnesota Community Measurement Health Information Technology Survey
9. HealthPartners Clinic Safety Assessment Survey
Cardiology Quality Measures
Web-Based & Tiering Information

Patient Experience (60%)
- Getting Care (20%)
  - Getting an appointment
  - Waiting for the specialist
  - Getting information by phone/email/internet
- Communication (20%)
  - Informed about your needs
  - Helping you understand your condition
  - How well specialist and staff listen
  - Attention to what is important to you
  - Talking with you about choices for treatment
- Care (20%)
  - Overall quality of care and service
  - Change in health
  - Willing to recommend

Heart Care (30%)
- Getting Care
- Communication
- Care

Generic Prescribing (10%)
- Prescribing generic medications
- Explanations about medications
- Explanations about medication side effects

- Monitoring high blood pressure medications
- Monitoring diuretic medications
- Appropriate medications for atrial fibrillation patients that are also at high risk for thromboembolism
- CAD: Beta blocker medication compliance for coronary artery disease patients
- CHF: Congestive heart failure patients currently taking an ACE-inhibitor or acceptable alternative.
- CAD: Coronary artery disease patients currently taking a statin medication
- CHF: Patient(s) compliant with prescribed beta-blocker-containing medication (minimum compliance 80%).
- Patient(s) with an acute myocardial infarction in the last 36 months who are currently taking a beta-blocker.
ENT Quality Measures
Web-Based & Tiering Information

- **Patient Experience (75%)**
  - Getting Care (25%)
    - Getting an appointment
    - Waiting for the specialist
    - Getting information by phone/email/internet
  - Communication (25%)
    - Informed about your needs
    - Helping you understand your condition
    - How well specialist and staff listen
    - Attention to what is important to you
    - Talking with you about choices for treatment

- **ENT Care (15%)**
  - Care (25%)
    - Overall quality of care and service
    - Change in health
    - Willing to recommend

- **Generic Prescribing (10%)**
  - Explanations about medications
  - Explanations about medication side effects

  - Tympanostomy: Patient(s) less than 12 years of age that had tympanostomy tube placement and met clinical criteria
  - Tonsillectomy: Patient(s) less than 21 years of age that had a tonsillectomy and met clinical criteria
OB/Gyn Quality Measures
Web-Based & Tiering Information

Patient Experience (60%)
- Getting Care (20%)
  - Getting an appointment
  - Waiting for the specialist
  - Getting information by phone/email/internet
- Communication (20%)
  - Informed about your needs
  - Helping you understand your condition
  - How well specialist and staff listen
  - Attention to what is important to you
  - Talking with you about choices for treatment
- Care (20%)
  - Overall quality of care and service
  - Change in health
  - Willing to recommend

Ob/Gyn Care (30%)
- Alcohol Screening
- Preventive care
- MNCM Breast Cancer Screening
- MNCM Chlamydia Screening
- Pregnancy Screenings (HBaSG, Syphilis, Chlamydia)
- Pregnancy Mgmt: No potentially harmful category D medications
- Pregnancy Mgmt: No potentially harmful category X medications

Generic Prescribing (10%)
- Prescribing generic medications
- Explanations about medications
- Explanations about medication side effects
Orthopedics Quality Measures
Web-Based & Tiering Information

Patient Experience (90%)

- Getting Care (30%)
  - Getting an appointment
  - Waiting for the specialist
  - Getting information by phone/email/internet

- Communication (30%)
  - Informed about your needs
  - Helping you understand your condition
  - How well specialist and staff listen
  - Attention to what is important to you
  - Talking with you about choices for treatment

- Care (30%)
  - Overall quality of care and service
  - Change in health
  - Willing to recommend

Generic Prescribing (10%)

- Prescribing generic medications
- Explanations about medications
- Explanations about medication side effects
Hospital Quality Measures

Patient Experience

HCAHPS:
- How do patients rate the hospital overall?[^1]
- How often did doctors communicate well with patients?[^1]
- How often did nurses communicate well with patients?[^1]
- How often did patients receive help quickly from hospital staff?[^1]
- How often did staff explain about medicines before giving them to patients?[^1]
- How often was patients’ pain well controlled?[^1]
- How often was the area around patients’ rooms kept clean?[^1]
- How often were the patients’ rooms and bathrooms kept clean?[^1]
- Were patients given information about what to do during their recovery at home?[^1]
- Would patients recommend the hospital to friends and family?[^1]

Heart Care:
- Heart attack death rate[^1]
- Returning to the hospital for heart attack[^1]
- Heart failure death rate[^1]
- Returning to the hospital for heart failure[^1]
- Heart bypass surgery[^2]
- CABG surgery 30-day mortality rate[^1]
- CABG surgery 30-day readmission rate[^1]
- Angioplasty[^2]
- Angioplasty mortality[^2]
- Time to transfer for acute coronary intervention[^1]
- Median time to ECG[^1]
- Aspirin at arrival[^1]
- Cardiac imaging for preoperative risk assessment for non-cardiac low-risk surgery[^1]

Lung Care:
- Pneumonia death rate[^1]
- Returning to the hospital for pneumonia[^1]
- COPD Mortality[^1]
- COPD Readmissions[^1]

Orthopedic Care:
- Returning to the hospital for knee replacement[^1]
- High Value Network Surgical Complications Measures[^3]

OB Care:
- Delivery with instrument[^2]
- Delivery without instrument[^2]
- Elective delivery before 37 weeks

Stroke Care:
- Stroke Mortality[^1]
- Stroke Readmissions[^1]
- Stoke Process Composite[^1]

General Surgery:
- Inguinal Hernia complications[^3]
- Gallbladder removal complications[^3]

Safety/Other:
- Patient Safety Indicators composite[^2]
- Flu vaccine for healthcare workers[^1]
- Flu vaccine for patients[^1]
- Blood clot prevention composite[^1]
- Returning to the hospital (hospital-wide readmits) [^1]
- Death among surgical patients with treatable serious complications[^2]
- Appropriate Follow-up Interval for Normal Colonoscopy in Average Risk Patients
- Colonoscopy Interval for Patients with a History of Adenomatous Polyps – Avoid Inappropriate Use
- ER: door to diagnostic evaluation[^1]
- ER: time to pain medication after bone fracture[^1]
- ER: head CT scan results within 45 minutes for patients presenting with stroke symptoms[^1]
- Abdomen CT - Use of Contrast Material[^1]
- Thorax CT - Use of Contrast Material[^1]
- Simultaneous Use of Brain CT and Sinus CT[^1]

[^1]: CMS: [http://data.medicare.gov](http://data.medicare.gov)