Performance Measurement Work Group Meeting (Webinar)

2/20/2019
Agenda

- Welcome and Introductions
- RY 2021 MHAC Policy Updates (for Discussion)
- PAU Update (for reference)
- Readmission Subgroup Update (for reference)
- Measure Evaluation Framework Overview (for reference)
- Quality Programs Future/Strategic Update (for reference)
Welcome and Introductions
RY 2021 MHAC Policy Updates
RY 2021 MHAC Staff Recommendations for Final Policy

► Continue to use 3M Potentially Preventable Complications (PPCs) to assess hospital-acquired complications.
  ▶ Include focused list of PPCs in payment program that are clinically recommended and that generally have higher statewide rates and variation across hospitals.
  ▶ Monitor all PPCs and provide reports for hospitals and other stakeholders.
  ▶ Explore development of national benchmarks for PPCs in future years.

► Assess hospital performance on attainment only using a wider and more continuous scale that better differentiates performance, rewarding high attainment but also incentivizing improvement.

► Weight the PPCs in payment program by 3M cost weights as a proxy for patient harm

► Convert weighted PPC scores to revenue adjustments using a prospective revenue adjustment scale that focuses on performance outliers:
  ▶ Set maximum penalty at 2 percent and maximum reward at 1 percent and use continuous non-linear scaling with a 65 percent cut point.

With current or v36 weights when released after assessment

Present both linear and non-linear modeling for PMWG and Commission consideration
Today’s Discussion Topics

▶ Stakeholder Feedback

▶ Zero Norm Concern
  ▶ 80% Exclusion Update
  ▶ 1 year vs. 2 year norms

▶ Revised Modeling of Hospital Scores
  ▶ Base: FY17 & FY 18  Performance: Oct. 17 - Sept. 18

▶ Revenue Adjustment Scales and Modeling
  ▶ Penalty/reward cut point
  ▶ Linear and non-linear scales
  ▶ Revenue adjustments
Stakeholder Feedback

- Support PPC selection
- Support use of attainment only with wider performance scale
- Conditionally support cost weights pending review to ensure they still match clinicians view of harm
- Concerns on reliability of indirect standardization
  - Without Bayesian adjustment 80% exclusion must remain
- Payment scale should focus on outliers because of concerns with case-mix adjustment and lack of national standards
  - Support non-linear scale
  - Continue to pursue ways to address risk adjustment concerns and how to use national benchmarks (which we should assess when the data are available)
- Support increasing rewards to 2%
- Suggest appeals process where HSCRC convenes clinicians
  - Current process for clinical vetting with 3M is adequate
Zero Norm Issue

- **Update on 80% exclusion**
  - Incorrectly reported that only 65% of PPCs in RY 2020 performance period were being captured;
  - 73% are being captured, however staff feel this is still significantly lower than 80% and do not recommend continuing this exclusion

- **RY 2021 addresses zero norms**
  - Reducing to 14 clinically significant PPCs
  - Proposing to use 2 years of data for normative values (FY17 and FY 18)
    - Reduces zero norms from 81% to 73%

- **Over next year, will explore prospective options for smoothing/reliability adjustment and National norms**
## Impact of 2 Years on Zero Norms

<table>
<thead>
<tr>
<th>PPC Number</th>
<th>PPC Description</th>
<th>2 Year Norms (FY17 &amp; 18)</th>
<th>1 Year Norms (FY18)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Percent &quot;Zero Norms&quot;</td>
<td>Total Diagnosis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>and Severity</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>of Illness Co</td>
</tr>
<tr>
<td>3</td>
<td>Acute Pulmonary Edema and Respiratory Failure without Ventilation</td>
<td>58%</td>
<td>755</td>
</tr>
<tr>
<td>4</td>
<td>Acute Pulmonary Edema and Respiratory Failure w/ Ventilation</td>
<td>64%</td>
<td>768</td>
</tr>
<tr>
<td>7</td>
<td>Pulmonary Embolism</td>
<td>78%</td>
<td>819</td>
</tr>
<tr>
<td>9</td>
<td>Shock</td>
<td>66%</td>
<td>817</td>
</tr>
<tr>
<td>16</td>
<td>Venous Thrombosis</td>
<td>81%</td>
<td>819</td>
</tr>
<tr>
<td>28</td>
<td>In-Hospital Trauma and Fractures</td>
<td>93%</td>
<td>829</td>
</tr>
<tr>
<td>35</td>
<td>Septicemia &amp; Severe Infections</td>
<td>60%</td>
<td>662</td>
</tr>
<tr>
<td>37</td>
<td>Post-Operative Infection &amp; Deep Wound Disruption Without Procedure</td>
<td>64%</td>
<td>275</td>
</tr>
<tr>
<td>41</td>
<td>Post-Operative Hemorrhage &amp; Hematoma with Hemorrhage Control Procedure or I&amp;D Proc</td>
<td>70%</td>
<td>336</td>
</tr>
<tr>
<td>42</td>
<td>Accidental Puncture/Laceration During Invasive Procedure</td>
<td>82%</td>
<td>853</td>
</tr>
<tr>
<td>49</td>
<td>Iatrogenic Pneumothorax</td>
<td>91%</td>
<td>789</td>
</tr>
<tr>
<td>60</td>
<td>Major Puerperal Infection and Other Major Obstetric Complications</td>
<td>8%</td>
<td>13</td>
</tr>
<tr>
<td>61</td>
<td>Other Complications of Obstetrical Surgical &amp; Perineal Wounds</td>
<td>57%</td>
<td>14</td>
</tr>
<tr>
<td>67</td>
<td>Combined Pneumonia (PPC 5 and 6)</td>
<td>52%</td>
<td>747</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>73%</strong></td>
<td><strong>6163</strong></td>
</tr>
</tbody>
</table>

Lowers Zero Norms and Increases Comprehensiveness/DRG-SOI Cells
Impact of 2 Years Norms on Performance Standards

2 year norms narrows the performance range between the threshold and benchmark for most PPCs.

Benchmark for full attainment credit (100 points) less aggressive for all PPCs except PPC 49.

Threshold for no attainment credit (0 points) more aggressive for all but three PPCs.

<table>
<thead>
<tr>
<th>PPC Number</th>
<th>PPC Description</th>
<th>2 Yr FY 17 &amp; 18</th>
<th>1 Yr FY 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Acute Pulmonary Edema and Respiratory Failure without Ventilation</td>
<td>1.8105, 0.5751</td>
<td>2.0865, 0.2067</td>
</tr>
<tr>
<td>4</td>
<td>Acute Pulmonary Edema and Respiratory Failure with Ventilation</td>
<td>1.7978, 0.4678</td>
<td>1.8562, 0.3138</td>
</tr>
<tr>
<td>7</td>
<td>Pulmonary Embolism</td>
<td>1.7773, 0.3836</td>
<td>2.0905, 0.0000</td>
</tr>
<tr>
<td>9</td>
<td>Shock</td>
<td>1.7988, 0.4235</td>
<td>1.6344, 0.3376</td>
</tr>
<tr>
<td>16</td>
<td>Venous Thrombosis</td>
<td>1.6437, 0.2133</td>
<td>2.1852, 0.0000</td>
</tr>
<tr>
<td>28</td>
<td>In-Hospital Trauma and Fractures</td>
<td>1.7259, 0.3859</td>
<td>2.1406, 0.0000</td>
</tr>
<tr>
<td>35</td>
<td>Septicemia &amp; Severe Infections</td>
<td>1.7416, 0.3659</td>
<td>1.7227, 0.2691</td>
</tr>
<tr>
<td>37</td>
<td>Post-Operative Infection &amp; Deep Wound Disruption Without Procedure</td>
<td>2.1254, 0.4020</td>
<td>2.6941, 0.2870</td>
</tr>
<tr>
<td>41</td>
<td>Post-Operative Hemorrhage &amp; Hematoma with Hemorrhage Control Procedure or I&amp;D</td>
<td>1.7871, 0.3592</td>
<td>1.9566, 0.0000</td>
</tr>
<tr>
<td>42</td>
<td>Accidental Puncture/Laceration During Invasive Procedure</td>
<td>2.5504, 0.4797</td>
<td>2.3152, 0.3221</td>
</tr>
<tr>
<td>49</td>
<td>Iatrogenic Pneumothorax</td>
<td>1.9877, 0.1946</td>
<td>2.2594, 0.3383</td>
</tr>
<tr>
<td>60</td>
<td>Major Puerperal Infection and Other Major Obstetric Complications</td>
<td>1.5373, 0.2404</td>
<td>1.9441, 0.0000</td>
</tr>
<tr>
<td>61</td>
<td>Other Complications of Obstetrical Surgical &amp; Perineal Wounds</td>
<td>2.0641, 0.1078</td>
<td>2.1750, 0.0000</td>
</tr>
<tr>
<td>67</td>
<td>Combined Pneumonia (PPC 5 and 6)</td>
<td>1.5607, 0.5899</td>
<td>1.7344, 0.3922</td>
</tr>
</tbody>
</table>
Revised Modeling of Hospital Scores

Scores presented at last PMWG: V36, 1 year norms, CY16 Base, FY 18 Performance

<table>
<thead>
<tr>
<th>Hospital Scores</th>
<th>Model 1: Improvement and Attainment</th>
<th>Model 2: Attainment Only</th>
<th>Model 3: Wider Performance Standards, Attainment Only</th>
<th>Percent Change Model 1 to Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>48%</td>
<td>41%</td>
<td>63%</td>
<td>31%</td>
</tr>
<tr>
<td>Average</td>
<td>51%</td>
<td>45%</td>
<td>61%</td>
<td>20%</td>
</tr>
<tr>
<td>Min</td>
<td>10%</td>
<td>0%</td>
<td>16%</td>
<td>60%</td>
</tr>
<tr>
<td>Max</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>25th</td>
<td>36%</td>
<td>31%</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>75th</td>
<td>68%</td>
<td>60%</td>
<td>73%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Revised Scores: V36, 2 year norms, FY17/18 Base, Oct. 17-Sept 18 Performance

<table>
<thead>
<tr>
<th>Hospital Scores</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>63%</td>
</tr>
<tr>
<td>Average</td>
<td>62%</td>
</tr>
<tr>
<td>Min</td>
<td>17%</td>
</tr>
<tr>
<td>Max</td>
<td>100%</td>
</tr>
<tr>
<td>25th</td>
<td>47%</td>
</tr>
<tr>
<td>75th</td>
<td>76%</td>
</tr>
</tbody>
</table>

Given the scores are similar, staff continue to recommend the 65% cut point for rewards and penalties.
Linear vs Non-Linear Revenue Adjustment Scales

- Non-linear scale significantly reduces revenue adjustments
- Staff willing to consider as interim policy to address continued concerns on risk-adjustment and lack of national benchmarks

### Abbreviated Scales

<table>
<thead>
<tr>
<th>Score</th>
<th>Linear</th>
<th>Non-Linear</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>-2.000%</td>
<td>-2.000%</td>
</tr>
<tr>
<td>5%</td>
<td>-1.833%</td>
<td>-1.573%</td>
</tr>
<tr>
<td>10%</td>
<td>-1.667%</td>
<td>-1.212%</td>
</tr>
<tr>
<td>15%</td>
<td>-1.500%</td>
<td>-0.910%</td>
</tr>
<tr>
<td>20%</td>
<td>-1.333%</td>
<td>-0.664%</td>
</tr>
<tr>
<td>25%</td>
<td>-1.167%</td>
<td>-0.466%</td>
</tr>
<tr>
<td>30%</td>
<td>-1.000%</td>
<td>-0.312%</td>
</tr>
<tr>
<td>35%</td>
<td>-0.833%</td>
<td>-0.197%</td>
</tr>
<tr>
<td>40%</td>
<td>-0.667%</td>
<td>-0.114%</td>
</tr>
<tr>
<td>45%</td>
<td>-0.500%</td>
<td>-0.058%</td>
</tr>
<tr>
<td>50%</td>
<td>-0.333%</td>
<td>-0.025%</td>
</tr>
<tr>
<td>55%</td>
<td>-0.167%</td>
<td>-0.007%</td>
</tr>
<tr>
<td>60%</td>
<td>0.000%</td>
<td>-0.003%</td>
</tr>
<tr>
<td>65%</td>
<td>0.000%</td>
<td>0.000%</td>
</tr>
<tr>
<td>70%</td>
<td>0.000%</td>
<td>0.003%</td>
</tr>
<tr>
<td>75%</td>
<td>0.167%</td>
<td>0.023%</td>
</tr>
<tr>
<td>80%</td>
<td>0.333%</td>
<td>0.079%</td>
</tr>
<tr>
<td>85%</td>
<td>0.500%</td>
<td>0.187%</td>
</tr>
<tr>
<td>90%</td>
<td>0.667%</td>
<td>0.364%</td>
</tr>
<tr>
<td>95%</td>
<td>0.833%</td>
<td>0.630%</td>
</tr>
<tr>
<td>100%</td>
<td>1.000%</td>
<td>1.000%</td>
</tr>
</tbody>
</table>
Revenue Adjustments

- See handout for hospital revenue adjustments

<table>
<thead>
<tr>
<th>Hospital Revenue Adjustments</th>
<th>For Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 3b: Expanded</td>
</tr>
<tr>
<td></td>
<td>Linear 60-70% Cutpoint</td>
</tr>
<tr>
<td># Hospitals Penalized</td>
<td>20</td>
</tr>
<tr>
<td># Hospitals No Adjustment</td>
<td>9</td>
</tr>
<tr>
<td># Hospitals Rewarded</td>
<td>18</td>
</tr>
<tr>
<td>Net Revenue Statewide</td>
<td>-$7,041,420</td>
</tr>
<tr>
<td>Total Penalties</td>
<td>-$15,701,800</td>
</tr>
<tr>
<td>Total Rewards</td>
<td>$8,660,380</td>
</tr>
<tr>
<td>Average % Adjustment</td>
<td>-0.09%</td>
</tr>
<tr>
<td>Realized Risk</td>
<td>0.28%</td>
</tr>
</tbody>
</table>

Given non-linear scale drastically reduces potential revenue adjustments, staff do not feel that 2% reward needs to be considered.
PAU Update
RY2020 PAU Updates

- Calendar Year 2018
- Switch to sending hospital for readmissions
  - On a hospital-specific level, apply the average intrahospital readmit cost to all readmissions sent from that hospital
  - Will produce a report on CRISP dashboard with this change next month.
- PQI measure changes
  - Phasing out use of PQI 2 Perforated Appendix, only counting prior to October 2018.
- TBD: RY2020 Protections, revenue reduction
RY2021 PAU Methodology updates

- Moving forward with per capita PQI
  - Based on the approach of MPA attribution, then geography for non-MPA attributed Marylanders

- PDIs/Low Birthweight
  - Geographic approach

- Readmissions
  - Last discussed: Count readmits from the sending hospital’s PSAP.
  - Should this be topic for Readmissions subgroup?

- TBD: Risk adjustment, border crossing
Continuing to work on per capita PQI reporting
  - Building PQI Tableau reports with CRISP (with prior year MPA attribution but will be updated when available)
  - Will produce static pediatric indicator reports soon, eventually plan to transition to Tableau

Plan on continuing to produce current reports and case-level files for now
  - Starting in 2019 plan on pediatric indicators included in case-level files.
Readmission Subgroup Update
Readmission Sub-group - Logistical Update

- Sub-group will have inaugural meeting on Tuesday, February 26 and will meet on final Tuesdays of the month
  - This is rescheduled from final Fridays
- We can keep PMWG apprised of progress throughout the year
- All meetings are open to the public (i.e. non-members can also join)
Potential Sub-Group Topics

- Readmission measure - inclusion and exclusion criteria
- Improvement target moving forward - national median or comparison group?
- Attainment calculation - border hospital data; by-payer benchmarks; socio-demographic or other adjustments?
- Per Capita Readmissions
- Emergency department/observation stay revisits
Measurement Evaluation Framework
Evaluating Quality Measures
Reliability and Validity
In Search of Reliability and Validity

Unreliable & Unvalid
Unreliable, But Valid
Reliable, Not Valid
Both Reliable & Valid

Types of Validity

● **Content**
  ○ Does the measure fully cover the relevant subject matter? E.g., did we leave important complications out of the PPC measures?

● **Face**
  ○ Do clinical and measurement experts support the measure?

● **Construct**
  ○ Are we measuring what we intend to measure?
  ○ E.g., is the PPC measure a reflection of complications, or some other construct?
Reliability and Validity in the Quality Context
The Opportunity

- HSCRC staff and work groups regularly evaluate changes to the quality methodologies.
- Empirically assessing the effect of each proposed change on reliability and validity could result in streamlined evaluation and better measures.
- What does that process look like?
Measuring Validity and Reliability

Mortality

Readmission

Complications

Correlated due to common cause

Quality of care
Implications

- If a change to a quality measure improves validity/reliability, the measure will:
  - Exhibit higher correlation with other quality measures
  - Exhibit higher year-over-year within hospital correlation
  - Exhibit same or lower correlation with “discriminant” measures
How This Might Work in Practice

- Collaborate with contractor to develop hypothesized set of relationships
- Solicit feedback from PMWG, other stakeholders
- Evaluate current measures against hypothesized relationships
- Build code to rapidly evaluate the effect of proposed methodology changes on hypothesized relationships
Quality Programs Strategic Updates
Quality Strategy Under the All-Payer Model

- Focus on Inpatient Quality Measures
- Transition from process to outcome measures
- Keep up with national Medicare pay-for-performance programs and quality achievement
- Where possible, apply Medicare quality measures to All-Payer basis
- Transform the Healthcare Delivery System
  - Via infusion of money (Infrastructure dollars, Transformation Grants for Regional Partnerships)
  - Via non-profit mandate (Community Benefit dollars)
  - Via waivers and data (Care Redesign Programs)
Guiding Principles For Performance-Based Payment Programs

- Program must improve care for all patients, regardless of payer
- Program incentives should support achievement of all payer total cost of care model targets
- Promote health equity while minimizing unintended consequences
- Program should prioritize high volume, high cost, opportunity for improvement and areas of national focus
- Predetermined performance targets and financial impact
- Hospital ability to track progress
- Encourage cooperation and sharing of best practices
- Consider all settings of care

Future strategy development will consider any updates to the Guiding Principles
Quality Strategy Under the TCOC Model: Proposed **Bold Improvement Goals**

- **Bold Improvement Goals (BIGs)** are intended to align community health, provider systems, and other facets of the State’s health ecosystem to improve population health and achieve success under the TCOC Model.

- **Development Partners:**
  - Interagency Workgroups
  - State Staff
    - Workgroups – as they are implemented into a specific program/policy
  - Commissioners, Leadership, Advisory Boards
  - Subject Matter Experts
  - Other Stakeholders
BIGs Draft Conceptual Model

**Bold Improvement Goals**
- Reduce Statewide Diabetes Burden
- “Behavioral Health/SUD Focus”
- “Senior Health and Quality of Life”
- “Patient-Centered Care and Health Disparities”

**Achieve 3, 5, 7-year targets**
1. Communicate Priorities and Methods of Alignment
2. Connect BIG targets and measures to Programs

**System and Statewide Alignment**
3. Collaborate and disseminate best practices

**Framework for tying TCOC Model Success to Population Health Improvements**
4. Share resources and Data
5. Monitor and Evaluate Progress
6. Refine and Update as nec’y

**Outputs: What will we get?**

**Activities: What will we do?**

**Inputs: Where will changes be made?**

HSCRC Hospital Programs
TCOC Model Outcomes-Based Credits
MDPCP Learning Systems and Quality Incentives
State Medicaid Programs and Priorities
MHCC Policies and Quality Reporting
MDH programs and Initiatives (SHIP, LHICs etc.)
Statewide Agencies and Programs
Community-Based Organizations, Payers etc.
## Connect BIG targets and Measures to Programs: Diabetes Example

<table>
<thead>
<tr>
<th>Goal</th>
<th>Targets</th>
<th>Examples of Measures</th>
<th>Implementing Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the Burden of Type II Diabetes in Maryland</td>
<td><strong>Process and Data</strong>&lt;br&gt;• Increase diabetic screenings by x%&lt;br&gt;• Increase statewide % of patients with DM annual wellness visits&lt;br&gt;• Increase statewide education and outreach by x%&lt;br&gt;&lt;br&gt;<strong>Clinical Outcomes</strong>&lt;br&gt;• Reduce diabetes related ED visits by x%&lt;br&gt;• Increase patients with controlled diabetes by x%&lt;br&gt;• Reduce Diabetes PQIs by x%&lt;br&gt;&lt;br&gt;<strong>Population-Based</strong>&lt;br&gt;• Reduce Diabetes incidence by x%</td>
<td><strong>Increase physical activity</strong> (SHIP)&lt;br&gt;• CRISP Documentation etc.&lt;br&gt;• Diabetes screening&lt;br&gt;• Adult BMI Assessment (NQF 0421)&lt;br&gt;&lt;br&gt;<strong>Emergency Department visit rate due to diabetes</strong> (SHIP)&lt;br&gt;• Diabetes Prevention Quality Indicators (HSCRC)&lt;br&gt;• CMS QIO Rate of state/territory-wide readmissions for HRM beneficiaries per 1,000 FFS beneficiaries&lt;br&gt;&lt;br&gt;<strong>Adolescents Who Have Obesity</strong> (SHIP)&lt;br&gt;• Adults who are not overweight or obese (SHIP)&lt;br&gt;• Incidence of Diabetes (Outcomes-Based Credits)</td>
<td><strong>Schools and Senior Resources</strong>&lt;br&gt;• MDPCP&lt;br&gt;• State Medicaid&lt;br&gt;• Care Redesign Programs&lt;br&gt;&lt;br&gt;<strong>HSCRC Quality Programs</strong>&lt;br&gt;• MDPCP&lt;br&gt;• MHCC Quality Reporting&lt;br&gt;&lt;br&gt;<strong>MDH Priority-setting</strong>&lt;br&gt;• Outcomes-based credits</td>
</tr>
</tbody>
</table>
HSCRC Hospital Quality Strategy Under the TCOC Model

- Develop hospital pay-for-performance programs that incentivize Maryland to be a leader in value
- Continue to monitor quality outcomes
- Report on population health and health disparities
- Consider OP Quality measures; quality in other settings of care
- Identify additional data sources; optimize use of non-traditional data sources
- Further invest in quality assurance and coding audits
HSCRC Hospital Quality Strategic Planning

- HSCRC is seeking expert advice to outline a 5 year strategy for updating hospital performance measures and measurement approaches.

- The strategic plan will outline the overall objectives of the programs, identify candidate measures for adoption, suggest options for program structure redesign (e.g., simplification, consolidation), and specify key tasks and timing for implementation of the strategic plan.

- The strategic plan will consider various frameworks for national alignment, including the CMS Meaningful Measures framework.

- Key tasks
  - Meet with key HSCRC internal and external stakeholders.
  - Use the evaluation measurement framework for assessing HSCRC’s current performance based payment measures and methodologies.
  - Identify/affirm important strategic areas that the HSCRC should focus on under the TCOC model, and where appropriate align with National/other quality frameworks.
  - Identify strategic objectives and implementation timeline.