The Episode Quality Improvement Program
February SIG Subgroup Meeting
2/12/2021
The HSCRC plans to start a voluntary, episodic payment program for specialist physicians, EQIP, in 2022. Key tenets include:

- Physician ownership of performance
- Upside only risk with dissavings accountability
- AAPM/value-based payment participation opportunities for MD physicians
- Alignment with other payer episode payment program

EQIP will utilize the Prometheus Episode Grouper approach, for the first performance year specialties include:

- Gastroenterology
- Orthopedics
- Cardiology

For more information on policy and participation, please contact madeline.jackson@Maryland.gov
Update on EQIP Timeline

• HSCRC staff plan to keep this group updated on timelines and key policy decisions over the next six months
  • Additional meetings, outreach and information will also be developed to inform the physician community

• Key Dates*
  • July 2021: Recruitment Start
  • August 2021: CMS Vetting, Contracting and Episode Selection
  • September 2021: Deadline for physician participation start 1/1/22
  • January 2022: Program Start

*Note: These dates are based on preliminary planning and do not reflect final clearance from CMMI
EQIP Policy and Methodology

HSCRC/CMS Policy
- Shared Savings/Incentive Payment calculation
- Target Price Methodology
- Risk Adjustment
- Quality Measures
- Reporting and Monitoring (via CRISP)
- Participation Specialty Areas
- CMS Policy (including QP status)

Focus for Today’s Discussion

Prometheus Episode Grouper
- Episode Definitions and Triggers
- Episode Attribution
- Related Cost Methodology
- Performance Calculation
Change Healthcare Team

Andrei Gonzales, MD
AVP, Value Based Payments

Holly Stocker
Director of Client Services, Value Based Payments

Liz Sheehan
Director of Business Consulting, Value Team

John Hutchinson
Senior Sales Executive, Value Based Payments
Change Healthcare Value Based Program
Innovating Value Based Payments Since 2012

Our Customers
Serving all lines of business

• Anthem
• Aetna
• AmeriHealth Caritas
• Cigna
• CareFirst
• New York State Dept. of Health
• Colorado Dept. of Health
• FL Blue
• Gateway Health
• Independence Blue Cross
• BCBS Horizon
• NJ Health

Our Experience

We analyze claims for
• 74M+ Members quarterly
• $750B in Claims

Delivering
• 225M episodes of care
• 7-day data turnaround

Speed to Market
• 45-60 days to go-live

Flexible
• SaaS- modularly deployable

Customer Results

• $245M+ in retrospective shared savings payments in 3 years
• 9% improvement on hip and knee costs
• 4% savings on pregnancy costs
• 94% of MA patients in for a comprehensive visit
• 7% reduction in inpatient hospitalization

33%
Our customers represent, at minimum, 1/3 of U.S. commercially insured lives
Prometheus Analytics® Value Proposition

Prometheus Analytics® provide critical insights required to drive the shift to Alternative Payment Models and Care Models designed to address rising healthcare costs.

Prometheus Analytics® cover 60%-70% of U.S. Healthcare Expenditures

Forecasted Growth of U.S. Healthcare Expenditures 2018 - 2027

- **2018**: $3.8T
- **2027**: $6.0T

The estimated expenditures for services covered by Prometheus Analytics® is projected to range from $3.6T to $4.2T by 2027.

Prometheus Analytics® target an Estimated $15.3B of Potential Savings

- **2018 U.S. Healthcare Spend**: $3.8T
- **Estimated Cost of Waste in the US Healthcare System**: $760 billion to $935 billion

$15.3B projected potential savings from interventions Prometheus Analytics® identify that reduce waste from overtreatment, low-value care, failure of care delivery and care coordination.

Prometheus Analytics® support 92% of Payments tied to Value-Based Care

- **Percentage of U.S. Healthcare Payments Tied to Value-Based Care**:
  - **2017**: 34%
  - **2019**: 45%

In 2017, 31.3% of payments tied to VBC comprised of shared-savings, shared-risk, procedure-based episodes, and condition-specific episodes managed by Prometheus Analytics®.

1 Centers for Medicare and Medicaid Services
2 American Medical Association
3 Health Care Payment Learning & Action Network
4 Assumes 5.5% year over year increase
Acquisition of The Industry Standard PROMETHEUS Analytics®

• **Why?** Change Healthcare’s objective is to continue to promote and enhance the PROMETHEUS methodology as the industry standard

• **Validate Episode Definition & Measurement:** Evidence-based clinical validity, with perceived neutrality, supporting diverse market use cases

• **Unparallel Clinical Excellence & Influence:** Creation of an Advisory Council, composed of a selected set of customers, to serve as a feedback loop for the continued development and improvement of the PROMETHEUS standard

• **Emphasize Clinical Excellence:** Acquisition included technology and the supporting resources;
  - Invested in 6 additional clinical coders
  - Hired a new CMO, Dr. Summerpal Kahlon

• ** Continued Investment in EOC:** Technology investment to advance delivery of the standard to industry via standardized API
PROMETHEUS Payment Model – Rewarding Providers for Efficient, High Quality Care

• Launched in 2006 with support from RWJ Foundation, maintained by HCI3/Altarum

• Evidence-informed Case Rates (ECR)
  • Comprehensive budget for treatment of an illness, condition or procedure
  • Payment for all providers in an episode
  • Adjusted for severity and complexity of the patient’s condition

• Potentially Avoidable Complications (PAC)
  • Complications that could be avoided with improved care coordination
  • PAC allowance based on ECR, payments either to offset costs or reward avoidance

• 97 episodes
  • Medical and pharmacy claims data, provider file, member eligibility
  • Episodes grouped into clinically relevant families
  • Leveling used to associate and budget for related episodes like CAD, CABG and Angioplasty
PROMETHEUS Cost Analysis

Total Cost of Care

All Costs Relevant to Episodes

Costs Not Assigned to Episodes

Costs of all Typical Care (Provider Practice Patterns)

- Core Services
- Other Relevant Services
- Overused Services
- Routine Services

Costs of all Potentially Avoidable Complications

All Costs Adjusted for Severity & Comorbidities

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PROMETHEUS Payment Model - Basics

- ECRs are grouped into four categories:
  - Chronic Condition – care for a chronic medical condition
  - Acute Medical – care for an acute medical condition
  - Procedural (Inpatient (IP) or Outpatient (OP)) – a major procedure and its follow-up care; the procedure may treat a chronic or acute condition
  - Other Condition – care for pregnancy and cancer episodes

- In addition, there is a generic episode type:
  - System-related Failures – Inpatient and follow-up care for a condition caused by a systemic patient-safety failure
Episode Of Care Definition Fundamentals

- Value-based mode designed to engage specialists
- Full spectrum of services related to and delivered for a specific medical condition, illness, procedure or health care event during a defined time period
- Coordination, communication, collaboration across the continuum of care

*Episode Example: Procedural Episode*

<table>
<thead>
<tr>
<th>Pre-Trigger Services (e.g. Labs, X-Rays)</th>
<th>Trigger (e.g. Surgery)</th>
<th>Post-Trigger Services (e.g. SNF, LTAC, PT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configurable period of time prior to the triggering event.</td>
<td>The specific diagnosis and/or confirming claims that start the creation of an episode</td>
<td>Configurable period of time post the triggering event.</td>
</tr>
</tbody>
</table>

Analysis Across The Continuum Identifies Opportunities For:

- Cost Savings
- Quality Improvement
- Network Optimization
Episode Associations: Patient Scenario
### Episodes of Care Definitions
#### 97 Standardized Prometheus Definitions

<table>
<thead>
<tr>
<th>Acute</th>
<th>Procedural</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Myocardial Infarction</strong></td>
<td><strong>Bariatric Surgery</strong></td>
<td><strong>Knee Replacement &amp; Knee Revision</strong></td>
</tr>
<tr>
<td>Hip/Pelvic Fracture</td>
<td><strong>Breast Biopsy</strong></td>
<td><strong>Lung Resection</strong></td>
</tr>
<tr>
<td>Pneumonia</td>
<td><strong>CABG, Valve Rep, Complex Heart Surg</strong></td>
<td><strong>Lumbar Laminctomy</strong></td>
</tr>
<tr>
<td>Stroke</td>
<td><strong>Cataract Surgery</strong></td>
<td><strong>Lumbar Spinal Fusion</strong></td>
</tr>
<tr>
<td>Upper Respiratory Infection</td>
<td><strong>Colon Resection</strong></td>
<td><strong>Mastectomy</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Colonoscopy</strong></td>
<td><strong>Pacemaker / Defibrillator</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Coronary Angioplasty</strong></td>
<td><strong>Prostatectomy</strong></td>
</tr>
<tr>
<td></td>
<td><strong>C-Section</strong></td>
<td><strong>Shoulder Replacement</strong></td>
</tr>
<tr>
<td></td>
<td>Gall Bladder Surgery</td>
<td><strong>Tonsillectomy</strong></td>
</tr>
<tr>
<td><strong>Hip Replacement &amp; Hip Revision</strong></td>
<td><strong>Hysterectomy</strong></td>
<td><strong>Transurethral resection prostate</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Knee Arthroscopy</strong></td>
<td><strong>Upper GI Endoscopy</strong></td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td><strong>Allergic Rhinitis/Chronic Sinusitis</strong></td>
<td><strong>Chronic Obstructive Pulmonary Disease</strong></td>
</tr>
<tr>
<td><strong>Arrhythmia / Heart Block / Condn Dis</strong></td>
<td><strong>Congestive Heart Failure</strong></td>
<td><strong>Gastro-Esophageal Reflux Disease</strong></td>
</tr>
<tr>
<td><strong>Attention Deficit/Oppositional</strong></td>
<td><strong>Coronary Artery Disease</strong></td>
<td><strong>Glaucoma</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Asthma</strong></td>
<td><strong>Hepatitis C</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Depression</strong></td>
<td><strong>Hypertension</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Bipolar Disorder</strong></td>
<td><strong>Diverticulitis</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Diabetes</strong></td>
<td><strong>Low Back Pain</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Total Cost of Care Analysis

### ACO Insights For PCP: AA4

**Cost By Episode Category**

<table>
<thead>
<tr>
<th>Episode</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical</td>
<td>$3,477,047</td>
</tr>
<tr>
<td>Typical With Comp</td>
<td>$1,035,194</td>
</tr>
<tr>
<td>PAC</td>
<td>$2,743,093</td>
</tr>
<tr>
<td>Total</td>
<td>$7,255,333</td>
</tr>
</tbody>
</table>

**PMPM Comparison to Market**

- 2,176
- $3,334

**Understand Referral Patterns for Key Episodes**

**Episode Acronym: KNRPL**

<table>
<thead>
<tr>
<th>Episode Acronym</th>
<th>Distinct Practice</th>
<th>count of</th>
<th>Avg Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNRPL</td>
<td>Practice.. count of..</td>
<td>17</td>
<td>$27,286</td>
</tr>
<tr>
<td>A13</td>
<td></td>
<td>4</td>
<td>$19,087</td>
</tr>
<tr>
<td>A24</td>
<td></td>
<td>2</td>
<td>$22,616</td>
</tr>
<tr>
<td>A38</td>
<td></td>
<td>11</td>
<td>$31,735</td>
</tr>
</tbody>
</table>

- **16% Higher Cost**

---

**Member Distribution**

- **Member Claim Expense**
  - Birth Year
  - Member Claim Expense

**Member Distribution**

- **Member Claim Expense**
  - Birth Year
  - Member Claim Expense
Colonoscopy Episode of Care
Tracking Key Performance Indicators

1. Track by Trigger Procedure
2. Track Provider Volume, Avg Cost and Complication Rates
3. Track Site of Service by Provider
4. Track Trends over Time
Colonoscopy Episodes of Care
Drilling into PACs with Market Benchmarks

- Identifies the opportunity for reducing cost while increasing the quality of care

<table>
<thead>
<tr>
<th>PAC Details: Colonoscopy</th>
<th>PAC Rate</th>
<th>PAC Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Episodes</strong></td>
<td><strong>Provider</strong></td>
<td><strong>Rate</strong></td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>DX05320</strong> Afib Flutter / Fibrillation</td>
<td>10</td>
<td>1.15%</td>
</tr>
<tr>
<td><strong>DX05299</strong> Fluid Electrolyte Acid Base</td>
<td>6</td>
<td>0.69%</td>
</tr>
<tr>
<td><strong>DX05335</strong> Sinus Node Dysfunction</td>
<td>3</td>
<td>0.34%</td>
</tr>
<tr>
<td><strong>DX1388</strong> Transient cedema</td>
<td>1</td>
<td>0.34%</td>
</tr>
<tr>
<td><strong>DX1711</strong> Adverse event</td>
<td>3</td>
<td>0.23%</td>
</tr>
<tr>
<td><strong>DX05340</strong> Other cardiac event</td>
<td>2</td>
<td>0.23%</td>
</tr>
<tr>
<td><strong>DX05297</strong> Hypotension</td>
<td>2</td>
<td>0.23%</td>
</tr>
<tr>
<td><strong>DX05275</strong> Phlebitis DVT</td>
<td>2</td>
<td>0.23%</td>
</tr>
<tr>
<td><strong>DX1385</strong> Thromboembolic Stroke</td>
<td>1</td>
<td>0.11%</td>
</tr>
<tr>
<td><strong>DX2362</strong> complications of medical</td>
<td>1</td>
<td>0.11%</td>
</tr>
<tr>
<td><strong>DX3671</strong> complications of surgical</td>
<td>1</td>
<td>0.11%</td>
</tr>
<tr>
<td><strong>DX16296</strong> Hemorrhage</td>
<td>1</td>
<td>0.11%</td>
</tr>
<tr>
<td><strong>DX05353</strong> Perforation Peritonitis Abd</td>
<td>1</td>
<td>0.11%</td>
</tr>
<tr>
<td><strong>DX04154</strong> Respiratory Insufficiency</td>
<td>1</td>
<td>0.11%</td>
</tr>
</tbody>
</table>

**Provider Selection**

- **AARON BRUSO**
  - Episodes: 11.16
  - Avg. Cost: $2,161
  - PAS%: 0.14

With Context
Better (or Worse) compared to peers
Colonoscopy Episodes of Care
Drilling into PACs with Market Benchmarks

- Identifies the opportunity for reducing cost while increasing the quality of care compared to peers.

### PAC Details: Colonoscopy

<table>
<thead>
<tr>
<th>Episodes</th>
<th>PAC Rate Provider</th>
<th>PAC Rate</th>
<th>PAC Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DX05298</td>
<td>Fluid Electrolyte Acid Base..</td>
<td>2.96%</td>
<td></td>
</tr>
<tr>
<td>DX05320</td>
<td>Atrial Flutter / Fibrillation</td>
<td>2.61%</td>
<td></td>
</tr>
<tr>
<td>DX05335</td>
<td>Sinus Node Dysfunction</td>
<td>1.42%</td>
<td></td>
</tr>
<tr>
<td>DX05297</td>
<td>Hypotension / Syncope</td>
<td>0.83%</td>
<td></td>
</tr>
<tr>
<td>DX171</td>
<td>Adverse effects of drugs</td>
<td>0.71%</td>
<td></td>
</tr>
<tr>
<td>DX04154</td>
<td>Respiratory Insufficiency</td>
<td>0.71%</td>
<td></td>
</tr>
<tr>
<td>DX24264</td>
<td>complications of surgical...</td>
<td>0.59%</td>
<td></td>
</tr>
<tr>
<td>DX04653</td>
<td>Other Bacterial Pneumonia</td>
<td>0.59%</td>
<td></td>
</tr>
<tr>
<td>DX05340</td>
<td>Other cardiac arrhythmias</td>
<td>0.36%</td>
<td></td>
</tr>
<tr>
<td>DX05308</td>
<td>Pulmonary Embolism</td>
<td>0.36%</td>
<td></td>
</tr>
<tr>
<td>DX04678</td>
<td>Other lung problems</td>
<td>0.36%</td>
<td></td>
</tr>
<tr>
<td>DX05269</td>
<td>Bacteremia SIRS no organ...</td>
<td>0.24%</td>
<td></td>
</tr>
<tr>
<td>DX03630</td>
<td>C-Difficile Infection</td>
<td>0.24%</td>
<td></td>
</tr>
<tr>
<td>DX05275</td>
<td>Perforated Deep Vein thrombosis</td>
<td>0.24%</td>
<td></td>
</tr>
<tr>
<td>DX04150</td>
<td>Aspiration Pneumonia</td>
<td>0.24%</td>
<td></td>
</tr>
<tr>
<td>DX2362</td>
<td>complications of medical...</td>
<td>0.12%</td>
<td></td>
</tr>
<tr>
<td>DX19103</td>
<td>Altered mental status</td>
<td>0.12%</td>
<td></td>
</tr>
<tr>
<td>DX1844</td>
<td>Opportunistic Infections</td>
<td>0.12%</td>
<td></td>
</tr>
<tr>
<td>DX02761</td>
<td>Hemorrhage</td>
<td>0.12%</td>
<td></td>
</tr>
<tr>
<td>DX03533</td>
<td>Perforation Perforations Abd...</td>
<td>0.12%</td>
<td></td>
</tr>
</tbody>
</table>

### ProviderSelection

<table>
<thead>
<tr>
<th>Episodes</th>
<th>Avg. Cost</th>
<th>PAS%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AARON BRUSO</td>
<td>$2,116,124</td>
<td>1.6%</td>
</tr>
<tr>
<td>A10354320</td>
<td>$2,249,434</td>
<td>1.5%</td>
</tr>
<tr>
<td>BEVERLEE BENMAN</td>
<td>$2,377,400</td>
<td>1.6%</td>
</tr>
<tr>
<td>BILLIE BUNN</td>
<td>$2,475,124</td>
<td>1.6%</td>
</tr>
<tr>
<td>AARON GREENLEY</td>
<td>$2,519,400</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

*Higher PAC Rate than peers*
Trackable Maternity Key Performance Indicators

1. Track by Prenatal Care
2. Track Program Participants vs Non-Participants
3. Track and Filter by Practice & Provider
4. Track Metrics over time
5. Individual Episode Details
What is the purpose of the episode? Where are the unwarranted variations in the episode? Who is responsible for coordinating care in the episode?

• **Who is performing the care?**
  – Could someone else be performing better care, with higher quality and outcomes for a lower cost?

• **Where is this care being delivered?**
  – Does site of service matter? Could the same care be delivered in an outpatient setting versus an in-patient setting?

• **Could the care have been avoided completely?**
  – If there had been better patient management, education and preventive care, could the event have been less costly?
CUSTOM EPISODES – High Level Design

Reference Data
- Episode Definition – Trigger codes, Episode Duration, Inclusion/Exclusion codes, Custom flag codes
- Filter parameters

Business Rules
- Episode Creation
- Filtering
- Provider Attribution

CUSTOM EPISODES ENGINE

Input Data → Reference Data → Business Rules → Output Data

Contracting and Shared Savings reconciliation – For initial analyses, supported manually with analytics services. Subsequently automate, as appropriate
# HSCRC Staff Proposed Episodes for PY1

<table>
<thead>
<tr>
<th>Cardiology</th>
<th>Gastroenterology</th>
<th>Orthopedics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute CHF / pulm edema</td>
<td>Colonoscopy</td>
<td>Hip Replacement &amp; Hip Revision</td>
</tr>
<tr>
<td>Acute Myocardial Infarction</td>
<td>Colorectal Resection</td>
<td>Hip/Pelvic Fracture</td>
</tr>
<tr>
<td>CABG &amp;/or Valve Procedures</td>
<td>Gall Bladder Surgery</td>
<td>Knee Arthroscopy</td>
</tr>
<tr>
<td>Coronary Angioplasty</td>
<td>GI Bleed</td>
<td>Knee Replacement &amp; Knee Revision</td>
</tr>
<tr>
<td>Coronary Artery Disease</td>
<td>Intestinal Obstruction</td>
<td>Lumbar Laminectomy</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>Pancreatitis</td>
<td>Lumbar Spine Fusion</td>
</tr>
<tr>
<td>Pacemaker / Defibrillator</td>
<td>Upper GI Endoscopy</td>
<td>Shoulder Replacement</td>
</tr>
<tr>
<td>Shock / Cardiac Arrest</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>