Ohio’s State Innovation Model:
Using Episodes of Care to Impact the Opioid Crisis
(and Other Public Health Priorities)

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Ohio Governor’s Office of Health Transformation

NASHP Preconference:
State Innovations and Interventions in America’s Opioid Crisis
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Providing Greater Transparency on Opioid Prescribing

The opioid crisis has impacted Ohio as hard as any other state in the nation:

- Most opioid overdose deaths – 3,459 in 2016 including prescription opioids, fentanyl and heroin
- 1 in 9 heroin overdoses nationwide occurs in Ohio
- Opioid overdose deaths increased 25 percent annually on average from 2011 to 2016

Within our broader opioid strategy, one way Ohio is addressing the crisis is through payment innovation – specifically by providing transparency on opioid prescribing to providers within clinically relevant episodes of care. For example:

- Orthopedics (minor injuries like sprains, and major surgeries like spinal fusion)
- Primary care (e.g., low back pain)
- Dentistry

Ohio’s episode-based payment model rewards cost-efficient, high-quality care

Provider cost distribution (average risk-adjusted reimbursement per provider)

- **Negative incentive**: No incentive payment
- **No change**: Eligible for positive incentive payment based on cost, but did not pass quality metrics
- **Positive incentive**: Principal Accountable Provider

NOTE: Each vertical bar represents the average cost for a provider, sorted from highest to lowest average cost.

Definition of the episode:

- **Episode triggers**
- **Principal accountable provider (PAP)**
- **Episode duration and spend**
- **Potential risk factors**
- **Exclusions**
- **Quality Metrics**
Definition of the episode: tooth extraction

<table>
<thead>
<tr>
<th>Category</th>
<th>Episode definition</th>
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<tbody>
<tr>
<td>1. Episode triggers</td>
<td>• A simple or surgical tooth extraction dental code</td>
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<td>2. Principal accountable</td>
<td>• Provider or provider group performing the tooth extraction</td>
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<td>provider (PAP)</td>
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<td>3. Episode duration and spend</td>
<td>• Pre-trigger window 2 (31-60 days prior to extraction): Specific dental evaluation and management (E&amp;M) services, and relevant dental imaging</td>
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<td>• Pre-trigger window 1 (1-30 days prior to extraction): Pre-trigger window 2 inclusions plus medical E&amp;M services, imaging, and medications</td>
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<td>• Trigger window: All services and specific medications</td>
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<td>• Post-trigger window 1 (1-15 days after extraction): Care after extraction (including complications, relevant imaging, testing, procedures, and medications)</td>
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<td>• Post-trigger window 2 (16-30 days after extraction): Opioids</td>
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<td>4. Potential risk factors</td>
<td>• Demographic factors (e.g., age, gender)</td>
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<td>• Medical factors (e.g., diabetes, tobacco-use disorder, immunocompromised patients)</td>
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<td>• Dental factors (e.g., number of teeth extracted, location of teeth extracted, previous root canal)</td>
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<td>5. Exclusions</td>
<td>• Business exclusions (e.g., dual eligibility, third party payer)</td>
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<td>• Clinical exclusions (e.g., HIV)</td>
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<td>• High outlier exclusions (calculated after risk adjustment)</td>
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<td>6. Quality Metrics</td>
<td>• Potential gain sharing metrics</td>
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<td></td>
<td>— Average difference in morphine equivalent dose (MED)/day filled between post-trigger and pre-trigger windows</td>
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<td></td>
<td>— Post-trigger ED visits</td>
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<td></td>
<td>• Potential informational quality metrics</td>
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<td></td>
<td>— Pre- and post-trigger average MED/day filled</td>
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<td></td>
<td>— New opioid prescriptions</td>
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<td></td>
<td>— Timely tooth extraction</td>
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<td>• Preventive services</td>
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<td>• General anesthesia rate (patients under 5 years)</td>
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<td>• Pre-trigger ED visits for known patients</td>
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Tooth Extraction Episode

Average non-risk adjusted episode spend in dollars | Count of episodes per Principal Accountable Provider
---------------------------------------------------|----------------------------------------------------------
6,000                                              | 152,925 valid episodes (after exclusions)               |
5,000                                              |                                                          |
4,000                                              |                                                          |
3,000                                              |                                                          |
2,500                                              |                                                          |
2,000                                              |                                                          |
1,500                                              |                                                          |
1,000                                              |                                                          |
750                                                |                                                          |
500                                                |                                                          |
250                                                |                                                          |
125                                                |                                                          |
60                                                 |                                                          |
$725 per episode on average at the 90th percentile | $159 per episode on average at the 10th percentile

1,265 Principal Accountable Providers: In descending order of average non-risk adjusted episode spend

KEY TAKAWAYS

• Wide variation in spend distribution among Principal Accountable Providers
• No correlation between average episode spend and count of episodes per PAP

Dentists can play a critical role in addressing the opioid crisis

- Dentists make up 4 percent of unique opioid prescribers in Ohio, but write 8 percent of total opioid prescriptions statewide.
- The majority of dental opioid prescriptions are written for tooth extraction procedures, which informed its selection as the initial dental episode.


Tooth extraction is one of the largest episodes by volume and opioids are prescribed in a majority of these episodes

- 150K Tooth extraction episodes
- 144K Unique Medicaid members
- 1,661 Principal Accountable Providers
- $60M Total episode spend
- 59% Episodes with opioid Rx
- 73% Opioid “naïve” episodes

More than a third a patients who may be at risk for opioid use disorder received an opioid prescription for tooth extraction

Potential risk factors

- Presence of 2+ behavioral health diagnoses, excluding Substance Use Disorders
- Presence of non-opioid Substance Use Disorder diagnosis
- Visiting 4 or more opioid prescribers within episode window
- Medication-Assisted Treatment of Substance Use Disorders (buprenorphine, naloxone or methadone)

<table>
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<tr>
<th>Risk Factor</th>
<th>Share of patients prescribed opioids with risk factor(s)</th>
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<tr>
<td>Presence of 2+ behavioral health diagnoses, excluding Substance Use Disorders</td>
<td>21%</td>
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<tr>
<td>Presence of non-opioid Substance Use Disorder diagnosis</td>
<td>16%</td>
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<tr>
<td>Visiting 4 or more opioid prescribers within episode window</td>
<td>13%</td>
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<tr>
<td>Medication-Assisted Treatment of Substance Use Disorders</td>
<td>3%</td>
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</table>

Share of total patients prescribed opioids with 1 or more risk factors for developing opioid use disorder: 36%

**SOURCE:** Analysis of Ohio claims data for episodes ending between 10/1/2014 and 9/30/2015.

Path Forward: We created opioid quality measures that provide transparency to enable provider behavior change

- **Average MED/day filled in pre-trigger window**
- **Average MED/day filled in post-trigger window**
- **Average difference in MED/day filled (pre- and post-trigger)**
- **New opioid prescriptions**

**Principal Accountable Provider variation**

- **Average MED/day filled in pre-trigger window:**
  - 0: 6, 10, 16
  - Source: 143
- **Average MED/day filled in post-trigger window:**
  - 0: 6, 13, 19
  - Source: 207
- **Average difference in MED/day filled (pre- and post-trigger):**
  - -60: 6, 13, 19
  - Source: 90
- **New opioid prescriptions:**
  - 0%: 23, 47, 58
  - 100%

**Quality metrics**

- We will track all opioid prescriptions within 60 days of the tooth extraction procedure and provide insight to providers regarding where they stand relative to their peers, and potentially tie select metrics to payment
- The same metrics will be provided in 8 episodes across Orthopedics, Primary Care, and Dentistry

**SOURCE:** Analysis of OH claims data for episodes ending between 10/1/2014 and 9/30/2015
Make Health Care Price and Quality Transparent

Primary Care Performance Report

Referral

Episode Performance Report

Patient Activity Report for Primary Care

Ohio’s reporting and performance years by episode wave

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<tr>
<td>Wave 1</td>
<td>Acute PCI, Asthma exacerbation, COPD exacerbation, Non-acute PCI, Perinatal, Total joint replacement</td>
<td>Reporting only</td>
<td>Performance Year 1</td>
<td>Performance Year 2</td>
<td>Performance Year 3</td>
<td>Performance Year 4</td>
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<tr>
<td>Wave 2</td>
<td>Appendectomy, Cholecystectomy, Colonoscopy, EGD, GI bleed, URI, UTI</td>
<td>Reporting only</td>
<td>Performance Year 1</td>
<td>Performance Year 2</td>
<td>Performance Year 3</td>
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<tr>
<td>Wave 3</td>
<td>Ankle sprain/strain, ADHD, Breast biopsy, Breast cancer surgery, Breast medical oncology, CABG, Cardiac valve, CHF exacerbation, Dental: tooth extraction, Diabetic ketoacidosis (DKA) / hyperosmolar hyperglycemic state, Headache, Hip/pelvic fracture procedure, HIV, Hepatectomy, Knee arthroscopy, Knee sprain/strain, Low back pain, Neonatal (high-risk), Neonatal (low-risk), Neonatal (moderate-risk), OOD, Otitis media, Pancreatitis, Pediatric acute lower respiratory infection, Tonsillectomy, Shoulder sprain/strain, Skin and soft tissue infection, Spinal decompression (without fusion), Spinal fusion, Wrist sprain/strain</td>
<td>Reporting only</td>
<td>Performance Year 1</td>
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Highlighted episodes have opioid clinical and quality measures built into the episode design and definitions.
Ohio’s State Innovation Model (SIM) Partners

- Anthem
- Medical Mutual
- aetna
- UnitedHealthcare
- CareSource
- Molina Healthcare
- Paramount Advantage
- Buckeye Health Plan