Using Data for Medically Supported Recovery Program Development

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Central City Concern
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Acknowledgements:

• Andy Mendenhall MD, CCC CMO (most of these slides are his!!!)
• Justine Pope, Health Share and CODA: a phenomenal skillset, unique role, and wonderful partner in this work.
What I am going to talk about:

“In this session, Dr. Risser will review evidence-based practices for the treatment of opioid use disorder and discuss the importance of data in understanding patient engagement and clinical gaps across a continuum of care. She will discuss an approach to utilizing MPR (Medication Possession Ratio) and a subsequent analysis of population segments with opioid use disorder across a Medicaid Cohort in the Portland Metropolitan Region. Through understanding the clinical rubric for MPR developed in partnership with the local Medicaid CCO in 2018, it will be possible to understand both this model of clinical analysis and how the region is working to improve access and patient engagement in treatment for opioid use disorders.”
## Broad Philosophic Context

<table>
<thead>
<tr>
<th>Condition</th>
<th>Intervention</th>
<th>NNT</th>
<th>NNH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes Tight Glycemic Control</td>
<td>A1C&lt;7.0%</td>
<td>NNT 250</td>
<td>NNH 6</td>
</tr>
<tr>
<td>Hypertension</td>
<td></td>
<td>NNT 29-118</td>
<td></td>
</tr>
<tr>
<td>Hypercholesterolemia</td>
<td>Primary Prevention Secondary Prevention</td>
<td>NNT 22-80</td>
<td>NNH 63-167</td>
</tr>
<tr>
<td>Alcohol Use Disorder</td>
<td>Acamprosate Naltrexone Total Abstinence Naltrexone</td>
<td>NNT 12</td>
<td>NNT 12</td>
</tr>
<tr>
<td></td>
<td>Retention in Treatment</td>
<td>NNT 2-4</td>
<td></td>
</tr>
</tbody>
</table>

Am. Fam. Physician. Raleigh M.F., 2017, March 1:95(5) online
Patients Maintained with OAT Demonstrate VASTLY Less Relapse with Opioids. (OAT = Opioid Agonist Treatment)
What are the costs of caring for patients? (OAT = Opioid Agonist Treatment)
Wheelhouse!

• Health Share (Portland area CCO) funded program aimed at expanding access to MAT.

• Initially: hub/spoke model of care where specialty “hubs” were available to “spokes” for consultation, support, specialty care.

• While initially these were conceptualized as places where folks could go for buprenorphine induction, the role of the Wheelhouse project and Wheelhouse coordinator expanded.

• One of the most important roles that the Wheelhouse coordinator took on was data gathering/coordination and interpretation and presentation of that data so we could understand our programming.

• Wheelhouse tracked progress with a variety of different data inputs: excel data entry, billing data, Medication Possession Ratio.
Medication Possession Ratio

• Numerator: the number of days that the patient has their medication
• Denominator: the number of days that the patient is eligible to have this medication

Measurement of filling medication as prescribed.
Approximation of adherence.
Relatively easy information to obtain.
Approximately 26,000 Health Share members have an SUD diagnosis.

(Active Health Share members with a SUDs diagnosis between July 2017 and June 2018)

- 8% of members overall
- 13% of the adult population

*This likely under-counts people impacted by substance use disorder, as it requires entry of a diagnosis*
Members with SUD by Zip

- Clackamas County: 5,078 members, 13% of adult members
- Multnomah County: 16,274 members, 14% of adult members
- Washington County: 4,828 members, 10% of adult members

Map showing the distribution of members with SUD across different counties.
Members with SUD: Demographics

- 72% of adults with SUDs are ages 25-54 (compared to 59% of Health Share adults overall).

- 52% of adults with SUDs are male (compared to 47% of Health Share members overall).

- The exception to males being overrepresented is opioid use disorder: Members with OUD have the same gender distribution as the overall Health Share population (53% female).

- White members comprise 79% of adult members with SUDs (compared with 68% of Health Share adults overall).
The most common substance types are alcohol, opioids, marijuana, and methamphetamines.

- Alcohol: 10749
- Opioids: 9518
- Marijuana: 7921
- Methamphetamines: 6921
- Other substances: 5807

9,670 (37% of members with an SUD diagnosis) have a diagnosis for more than one substance type.

Members can be in more than one group.
A POPULATION ANALYSIS

OUD POPULATION CARE PATHWAYS and ENGAGEMENT

- Opioid Use Disorder: One or more claims -F33 or overdose
- 9,842 members

- Linkage to Care
- Receive SUD treatment: One or more claims -either medication or non-medication
  - Includes detox, residential, group and individual counseling, and MAT
  - 6,857 members (70%)

- MAT Initiation

- SUD treatment w/o MAT: Dropped
  - 1+ claims for residential, detox, counseling
  - No MAT claims
  - Most recent status is a gap of 45+ days after SUD claim
  - 916 members (9%)

- SUD treatment w/o MAT: 3+ claims for residential, detox, counseling

- Receive MAT services:
  - One or more claims for OUD or OTP medication
  - May also have claims for residential, detox, etc.
  - 5,542 members (56%)

- MAT Engagement

- MAT dropped: 3+ MAT claims, but most recent status is a gap of 45 or more days after the end of a medication claim
  - 1034 members (11%)

- MAT initiation/early/low engagement
  - Initiations: 2 MAT claim only and <30 days of MAT
  - Early engagements: 2+MAT claims out <30 days of MAT
  - Low engagements: >30 days of MAT, MFR < .5
  - 904 members (9%)

- MAT moderate engagement
  - >30 days of MAT, MFR between .5 and .74
  - 479 members (5%)

- MAT high engagement
  - >30 days of MAT, MFR > .75
  - 3125 members (32%)

12 month time frame: October 2017-Sept 2018. The boxes represent the current status of each member with an OUD. Claims are current as of 12/31/18.

All percentages are of the total number of members with an OUD diagnosis.

MFR = Medication Possession Ratio. The days on MAT/the total days in MAT treatment episode. A 45 day gap ends a treatment episode.
MAT DASHBOARD

- Page one has OTP providers
- Color indicates levels of MAT engagement
Page two has OBOT prescribers
### MAT DASHBOARD

#### Health Share MAT Initiation and Engagement Rates

Data is from 3/29/2018 to 3/28/2019

<table>
<thead>
<tr>
<th>Plan Partner</th>
<th>Clinic Assignment</th>
<th>Number of members with OUD diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT Initiation</td>
<td>(All)</td>
<td>5,709</td>
</tr>
<tr>
<td>No treatment</td>
<td>(All)</td>
<td>3,028</td>
</tr>
<tr>
<td>SUDs Treatment without MAT</td>
<td>(All)</td>
<td>1,145</td>
</tr>
<tr>
<td>MAT High Engagement</td>
<td>(All)</td>
<td>3,691</td>
</tr>
</tbody>
</table>

#### Current MAT Engagement Levels among members who receive MAT services

<table>
<thead>
<tr>
<th>MAT Engagement Level</th>
<th>Members</th>
<th>Engagement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT Drop</td>
<td>1,074</td>
<td>18.8%</td>
</tr>
<tr>
<td>MAT Initiation only</td>
<td>149</td>
<td>2.6%</td>
</tr>
<tr>
<td>MAT Early Engagement</td>
<td>281</td>
<td>4.9%</td>
</tr>
<tr>
<td>MAT Low Engagement</td>
<td>56</td>
<td>1.0%</td>
</tr>
<tr>
<td>MAT Moderate Engagement</td>
<td>458</td>
<td>8.0%</td>
</tr>
<tr>
<td>MAT High Engagement&lt; 6 months</td>
<td>566</td>
<td>9.9%</td>
</tr>
<tr>
<td>MAT High- 6-10 mos</td>
<td>1,144</td>
<td>20.0%</td>
</tr>
<tr>
<td>MAT High- 11+ mos</td>
<td>1,981</td>
<td>34.7%</td>
</tr>
</tbody>
</table>

MAT services by payer
Members in the highly engaged MAT groups have a 96% lower inpatient utilization rate than members in the no treatment group.
Members in the highly engaged MAT groups have a 51% lower ED utilization rate than members in the no treatment group.
## Cost difference by cost type

<table>
<thead>
<tr>
<th>Visit type</th>
<th>PMPM cost differences*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient</td>
<td>-$420</td>
</tr>
<tr>
<td>Prescriptions (other than MAT)</td>
<td>-$121</td>
</tr>
<tr>
<td>Emergency dept.</td>
<td>-$44</td>
</tr>
<tr>
<td>Other costs (DME, etc.)</td>
<td>-$149</td>
</tr>
<tr>
<td>MAT (OTP and OBOT)</td>
<td>+$385</td>
</tr>
<tr>
<td>Transportation</td>
<td>+$74</td>
</tr>
<tr>
<td>Detox/Residential</td>
<td>+$42</td>
</tr>
<tr>
<td>PCP/Dental</td>
<td>+$26</td>
</tr>
<tr>
<td>BH/SUDs outpatient services</td>
<td>+$21</td>
</tr>
<tr>
<td>Labs</td>
<td>+$11</td>
</tr>
<tr>
<td>Specialty</td>
<td>+$9</td>
</tr>
<tr>
<td><strong>OVERALL Difference</strong></td>
<td></td>
</tr>
<tr>
<td>No treatment = $1455 PMPM</td>
<td></td>
</tr>
<tr>
<td>Highly engaged= $1289 PMPM</td>
<td></td>
</tr>
<tr>
<td><strong>OVERALL Difference</strong></td>
<td><strong>-$166 PMPM</strong></td>
</tr>
</tbody>
</table>

*Between members highly engaged in MAT and members receiving no treatment

- Primarily PH
- Primarily BH
- Mix/NEMT

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**Inpatient** - -$420

**Prescriptions (other than MAT)** - -$121

**Emergency dept.** - -$44

**Other costs (DME, etc.)** - -$149

**MAT (OTP and OBOT)** - +$385

**Transportation** - +$74

**Detox/Residential** - +$42

**PCP/Dental** - +$26

**BH/SUDs outpatient services** - +$21

**Labs** - +$11

**Specialty** - +$9

**OVERALL Difference**
- No treatment = $1455 PMPM
- Highly engaged= $1289 PMPM
- **OVERALL Difference** = **-$166 PMPM**
PMPM Costs by Payer

No treatment
- PH: $1,315
- NEMT: $57

Highly engaged MAT
- PH: $433
- NEMT: $625

Values are in dollars ($).
How we used data at Hooper to track improvement projects and collaborate w Payors
Hooper Admissions, January 1 2019 - June 30 2019
Primary DOC and Discharge Type

- Alcohol (n=605)
  - Tx Complete: 424
  - AMA: 361
  - Service Disc: 101
  - Unknown: 23

- Opioids (n=561)
  - Tx Complete: 30
  - AMA: 20
  - Service Disc: 92
  - Transferred: 1
  - Unknown: 2

- Stimulants (n=109)
  - Tx Complete: 101
  - AMA: 1
  - Service Disc: 2

- Sedatives (n=16)
  - Tx Complete: 2

- Other/unknown (n=35)
  - Tx Complete: 2
  - AMA: 1

Footer details: View > header & footer > Apply to all
Goal- increase number of folks discharged to continued treatment

• MAT Discharge and Followup/Engagement, January 1 – June 30 2019

• 14% of patients (n=179) admitted to Hooper elected to discharge on a maintenance dose of buprenorphine to treat their OUD.

• Mean engagement rates across MAT programs:
  • 68% of referred patients make it to their first appointment and are engaged at 7 days
  • 56% of patients are engaged at 30 days
MAT Discharge and Followup/Engagement, January 1 – June 30 2019

Credit: Justine Pope and hard work of care coordinators Sarah Abuelkhiar and Cassandra Croxton
Health Share MAT Initiation and Engagement Rates by clinic
Data is from Feb 2018 - Jan 2019, current as of 2/19/2019

OBOT Prescribers:

- SEAMAN, ANDREW
- SMITH, ELIUHA
- LAND, LAUREN
- BARTHOLOW, LYDIA
- CENTRAL CITY CONCERN
- LAWRENCE, DAVID
- JENSEN, AMANDA
- MENDENHALL, ANDREW
- SUSTERSIC, BRIANNA
- GIL, RICHARD
- VAN HOUTEN, HEATHER
- CHAN, BRIAN
- DEVOE, MEG
- HARRIS, VIRGINIA
- GIMMILLARO, TERENA
- BISHOP, JENNIFER
- CANNING, PATRICIA
- HILL, ANYA
- SCHWARTZ, BRYAN
- MYKILIL, RINA
- Andria Despain
- CULVER, BRINN
- GOUGH GOLDSMITH, ANDREA
- GRAY, CHRISTINE
- REEL DAVIS, CHANEY
- RIEKE, EOWYN

Number of Members
Central City Concern CEP Cohort Analysis
Total n = 45
All data are for February 2018-January 2019 and are current as of 2/19/19.

CEP Cohort MAT Initiation
MAT Initiation: 91% (Health Share average is 58%)

MAT Initiation: 90.9%
Treatment without MAT: 9.1%

% of Cohort

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

CEP Cohort MAT Engagement
MAT High Engagement: 55% (Health Share average is 37%)

MAT High Engagement: 54.5%
MAT Moderate Engagement: 20.5%
MAT Early Engagement: 2.3%
MAT Drop: 13.6%
Treatment without MAT: 9.1%

% of Cohort

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

CEP Cohort: All MAT Categories

MAT High: 11+ mos: 25.0%
MAT High: 6-10 mos: 25.0%
MAT High: < 6 mos: 4.5%
MAT High Engagement: 20.5%
MAT Moderate: 2.3%
MAT Early: 13.6%
Treatment without MAT: 9.1%

% of Cohort

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Managing the Cycle of Relapse and Recovery requires:
- Uniform Clinical Interpretation and Response
- Consistent communication with the patient
- H.A. Panel Management
- High-Risk Care Coordination Assignment

CCC OBOT Treatment Matrix

MAG 1- OBOT Non-Responding
2 Provider visits/WK
UDS weekly
Pill counts
HOT-LIST Rounding/Care Coord.
Prep for warm handoff to HLOC/OTP/MMTP

MAG 2- OBOT Responding +Impairment
2 Provider visits/WK
UDS weekly
Pill Counts
HOT-LIST Rounding/Care Coord.
Prep for warm handoff to internal or external higher level of care or Detox, as appropriate.

Injectables?

ORANGE: New Patient/Rejoin
2 Provider Visits/WK during the first 10-14 days; UDS each visit

ORANGE: Stabilization Patient
1 Provider Visit/WK
UDS 2x’s month+ Bup confirmation monthly
Pill counts
PDMP Monthly

YELLOW: Maintenance Patient
Cannabis or episodic ETOH
1 Provider Visit/2 weeks
UDS Monthly+ Bup
Confirmation q2 mos
Pill Counts q2 months
PDMP q 2 months

GREEN: Maintenance Patient
Buprenorphine Only
1 Provider Visit/4 weeks
UDS Monthly+ Bup
Confirmation q2 mos
Pill Counts Quarterly
PDMP Quarterly

60 Day Minimum
6 Month Minimum
12 Months then q2mo

30-60 Day Maximum
Opportunities:

1. Train to and deploy a new model
2. Develop standardized workflows and decisions
3. Facilitate a higher volume of clinical visits, as clinically appropriate
4. Develop clinical performance of benchmarks of engagement
5. Scope-it, train-it and deploy-it.
6. Document what you are doing (manuals, guidelines, etc)