Partnering with Hospitals through PreManage to Drive Population Health Management at a FQHC

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Director of Quality Management
Agenda

• Who is Central City Concern?
• How patient attribution is assigned
• How can PreManage Support an FQHC?
• Utilizing PreManage to drive Quality Improvement
• Using a DataWarehouse to knit together disparate data
• Risk Stratification, Population Segmentation
• Addressing ED utilization
• Community Driven Solutions
Central City Concern

- Housing • 1979
- Detox • 1982
- Outpatient SUDS • 1990
- Employment services • 1992
- Outpatient mental health • 2002
- FQHC • 2003
8324 patients served

3510 residents housed

956 job seekers assisted

5676 individuals received short-term stabilization

1700 apartments in 24 buildings
- Transitional housing
- Permanent supportive housing
- Family housing
- Housing first and harm reduction programs

13 federally qualified health center sites
- Integrated primary & behavioral health care
- Community mental health services
- Subacute detoxification
- Inpatient and outpatient recovery services
- Acupuncture & naturopathic treatments
- Pharmacy

Employment services
- One-on-one supported employment services specific to individual and community needs
- Volunteer opportunities that build confidence and work skills
- Training through transitional jobs in social enterprises

Sobering services
- Transportation and stabilization services that protect the health and safety of the downtown community
- Harm reduction for individuals experiencing public intoxication

2016
Patient Attribution

- Weekly extract sent to Premanage for CCC and Care Team attribution
- Integrated Health Care GE Centricity
- Supportive Housing YARDI & HMIS
- Income and Employment Database Coming Soon
- Daily, Monthly Extract sent to CCC
- PreManage
| VISIT DETAILS |
|--------------|--------------|
| **May** 2017 | **Portland OR** |
| Visit Type  | Discharge Date |
| Emergency   |               |
| Chief Complaint | Discharge Disposition |
|              | Urgent Care   |
| Attending Physician | Discharge Diagnosis |
| Billing Account Number | Diagnoses |
|              | • back pain   |
| Insurance   | Major Visit Type History |
|              | Emergency     |

Notifications

None

MLT: This visit was created on

Review Visit

Expand to add details to review
Suggested Care Recommendations

Author: 
Author Phone Number: 
Latest Update: 1/2016

Significant Medical Conditions and Treatment:
- This patient often presents to ED with alcohol use.
- It is unclear if he has established PCP of not.

- In 2016, OHSU ED transitional care SW (New directions) met him in ED and attempted to do follow up. All outreach attempts to engage him were unsuccessful.

Community Supports
- Primary care provider/clinic: He is assigned to Old Town Clinic 503-228-4533 through . Unclear if he has established care.

Care Coordination:
When the patient presents to the ED, meet with the patient, follow up on any outstanding issues, and contact the following people or programs for care coordination:

- Should he represent to ED and express any interest in follow up care coordination or services, he can be encouraged to contact me at .

- He may be re-screened for outreach services through New Directions.

- Please consider contacting Old Town Clinic 503-228-4533 to see if he is established for care there.

These are guidelines and the provider should exercise clinical judgment when providing care.
How can PreManage Support an FQHC?

• Care Coordination
  • Summit, Assertive Community Treatment (ACT)

• Engagement
  • Community Health Outreach Workers – Assigned but unengaged

• Information Gathering

• Risk Stratification, Predictive Analysis and Population Segmentation

• Quality Improvement
Team Based Complex Care

Weekly High Risk Huddle to coordinate care for highest risk inpatients:

PCP, Pharmacist, Health Resilience Specialist, Health Assistant

<table>
<thead>
<tr>
<th>Care Team</th>
<th>Pioneers</th>
<th>OTC Patient Status</th>
<th>(Multiple Items)</th>
<th>Major Class</th>
<th>Inpatient</th>
</tr>
</thead>
</table>

Select admit date range from timeline below.
[List automatically sorts by complexity score.]

<table>
<thead>
<tr>
<th>Last Admit Date</th>
<th>Avg PC Complex Score</th>
</tr>
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<tbody>
<tr>
<td>4/23/2017</td>
<td>1.47</td>
</tr>
<tr>
<td>4/14/2017</td>
<td>1.58</td>
</tr>
<tr>
<td>4/24/2017</td>
<td>1.89</td>
</tr>
<tr>
<td>4/20/2017</td>
<td>2.26</td>
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<tr>
<td>4/22/2017</td>
<td>2.30</td>
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<td>4/23/2017</td>
<td>1.92</td>
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<tr>
<td>4/24/2017</td>
<td>1.71</td>
</tr>
<tr>
<td>4/14/2017</td>
<td>1.44</td>
</tr>
</tbody>
</table>

Grand Total: 4/24/2017 1.73
Early results of 30 Day Readmissions

- **Pioneers HRH**: 17.8% (8/45)
- **Other OTC Care Teams**: 24.4% (156/634)
Data Warehouse

• Brings together multiple data sources
  • More effective reporting
  • Fuller picture of clients’ lives

• Leverages robust data to create insight
  • Program level: drives quality improvement
  • Department level: fosters resource stewardship
  • Organization level: enables strategic planning
Data Warehouse Roadmap

What are we building? How will we get there?

**Strategy**
Produce analysis to drive change

**Focus:** Leadership’s vision shapes the development of each level of the data warehouse. Analysis from the data warehouse shapes decisions about the future of CCC.

**Key players:** Senior and departmental leadership and QM

**Operations**
Develop reports that deliver insight

**Focus:** Leadership accesses reports that are highly tailored to operational needs. Data informs key decisions.

**Key players:** Departmental leadership and QM

**Reporting**
Develop basics metrics to make reporting efficient

**Focus:** Timely, accurate reports of basic metrics

**Key players:** QM, data warehouse developers, IS/IT, BBIS, program staff (as needed)

**Infrastructure**
Build and validate a database to make data easy to use

**Focus:** Validated, easy-to-use database; “source of truth”

**Key players:** Data warehouse developers, QM (as needed)
Program Analysis and Outcomes

• Put actionable data into the hands of leadership
• New paradigm: self-service analytics
  • Provides greater access to data
  • Enhances capacity for deep-dives
# Comparison of Risk Scores

<table>
<thead>
<tr>
<th></th>
<th>HCC Risk Adjustment Score</th>
<th>OTC Complexity Score</th>
<th>OTC Hospitalization Risk</th>
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</thead>
<tbody>
<tr>
<td><strong>Predicts:</strong></td>
<td>Future health care costs</td>
<td>Clinical complexity (by proxy)</td>
<td>Hospitalizations in next 30 days</td>
</tr>
<tr>
<td><strong>Tailored to:</strong></td>
<td>Community Medicaid population</td>
<td>OTC patients</td>
<td>OTC patients</td>
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<tr>
<td><strong>Method:</strong></td>
<td>Regression</td>
<td>Regression</td>
<td>Machine learning</td>
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<tr>
<td><strong>Variables:</strong></td>
<td>• Age</td>
<td>• Homelessness</td>
<td>• Homelessness</td>
</tr>
<tr>
<td></td>
<td>• Sex at birth</td>
<td>• Age</td>
<td>• Prior hospitalizations</td>
</tr>
<tr>
<td></td>
<td>• Diagnosis groups</td>
<td>• Diagnosis groups</td>
<td>• Prior ED visits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Summit diagnoses</td>
<td>• 3 “hypotheses” include:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Chronic pain</td>
<td>• Diagnosis groups</td>
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<td></td>
<td></td>
<td>• Cancer</td>
<td>• Prior GM visits</td>
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<tr>
<td></td>
<td></td>
<td>• Mental illness</td>
<td>• Prior MH/SUDS visits</td>
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<tr>
<td></td>
<td></td>
<td>• Self-harm behaviors</td>
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Predictive Modeling to assess Risk of Inpatient Hospitalization

Calibration Plot of Hospitalization Predictions
n=168,555

A perfect prediction would plot directly on the dotted line
The larger the spread the lower the Confidence Level
Population Segmentation

• Target the right *services* to the right *people* at the right *time*
• Combination of statistical analysis and staff insight
• Project will lay groundwork for:
  • Streamlined service delivery
  • Improved outcomes
Population Segmentation
Root Causes for Homeless Population utilizing Emergency Departments

• Homelessness
• Addictions
• Untreated mental health
• Chronic conditions
• Safety
• Food Insecurity
• Unemployment
• Social Isolation
• PTSD

Ego Depletion *

How do these root causes impact a person’s self-control to make an appointment with PCP rather than get immediate care at a ER?

Increasing Access for Primary Care

- Old Town Clinic Urgent Care
  - Open Evenings and Saturdays
- Expanded Stand-By model to four largest Care Teams
  - 50% of patients with a Stand-By appointment said they would have gone to ED
Community Driven Solutions

“Oregon health organizations invest $21 million in affordable housing, medical services” Oregonian 9/23/16

- Adventist Health Portland,
- CareOregon,
- Kaiser Permanente Northwest,
- Legacy Health,
- OHSU and
- Providence Health & Services - Oregon
Data Informed Community Assessment
How can we learn from the narratives of our community?

“It’s really intimidating, difficult and exhausting to have to deal with 15 different places to address my health”

May 5, 2017 "Ending Homelessness for People with Addictions: A Forum on Recovery Housing"
Many organizations provide case management to address ED “frequent flyers”

- Coordinated Care Organizations
- County Office of Health
- Hospital programs
- Pharmacy programs
- Community Health Workers
- Primary Care Providers

Change happens at the speed of trust

What's the impact on trust if these are not coordinated?

Can PreManage be a tool to better coordinate these programs?
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