Laying the Groundwork for Learning Healthcare in Oregon

Julie Mitchell, Tamara Sale, Carla Gerber, Tara Niendam and Dunni Oluwoye
Introducing Ourselves
Objectives

• Review what data EASA is collecting and what we are learning from it. Julie and Tamara 20 mins

• Discuss what a Learning Health System is and national efforts to create EPINET Julie and Tamara 10 mins

• Describe PeaceHealth EASA’s involvement in research and what we have been learning Carla 15 mins

• Discuss collaborative opportunities going forward for improving services through research and quality improvement Tamara, Tara, Dunni
History of Data Collection in EASA

• Began collecting data on community ed, referrals and outcomes in 2002
• Integrated into Quality Improvement as early as 2004
• Focus on useful, simple, clinician report measures
• Disruption 2014-2016 due to PSU HIPAA issues; moved to OHSU in 2017; attempted to clean data held by OHA
Other forms of data

- Fidelity review scores every 2 years
- Clinician start/stop and completion of data
- Training feedback
- Episodic surveys and focus groups focused on areas of interest
Ways Data has Been Used

• Informing legislature, funders
• Identifying areas of improvement
  – Has periodically been integrated
• Informing program development and research
  – EASA Connections
  – Understanding who has been served
  – Looking at retention and completion
  – Informing questions about outcomes, etc.
• Benchmarking
EASA Aims

- Identify people as early as possible
- Engage rapidly
- Partner with individuals and families
- Offer person-centered effective care
- Reduce trauma and involuntary experiences
- Support developmental progression
- Provide effective transitions
Identify as early as possible
Ratio of Referrals to Intakes Over Time

Q1-2 2016 | Q3-4 2016 | Q1-2 2017 | Q3-4 2017 | Q1-2 2018 | Q3-4 2018 | Q1-2 2019
------ | ------ | ------ | ------ | ------ | ------ | ------ 
54% | 48% | 46% | 43% | 37% | 42% | 39%
Number in EASA Over Time

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>Q2 2016</td>
<td>430</td>
</tr>
<tr>
<td>Q4 2016</td>
<td>385</td>
</tr>
<tr>
<td>Q2 2017</td>
<td>413</td>
</tr>
<tr>
<td>Q4 2017</td>
<td>384</td>
</tr>
<tr>
<td>Q2 2018</td>
<td>447</td>
</tr>
<tr>
<td>Q4 2018</td>
<td>453</td>
</tr>
<tr>
<td>Q2 2019</td>
<td>470</td>
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</tbody>
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Reason for Acceptance in EASA (%)

- **First episode 12 mos or less**
- **First episode more than 12 mos**
- **Clinical high risk**
- **Further assessment**

<table>
<thead>
<tr>
<th>Year</th>
<th>First episode 12 mos or less</th>
<th>First episode more than 12 mos</th>
<th>Clinical high risk</th>
<th>Further assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>62%</td>
<td>7%</td>
<td>19%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>63%</td>
<td>5%</td>
<td>18%</td>
<td>13%</td>
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<tr>
<td>2018</td>
<td>60%</td>
<td>3%</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>2019</td>
<td>49%</td>
<td>4%</td>
<td>32%</td>
<td>14%</td>
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</tbody>
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Age at Intake 2016-present

- Under 15: 6%
- 15-17: 28%
- 18-21: 43%
- 22-25: 21%
- Over 25: 2%
Native American/Alaskan: 3%
Black: 9%
Hawaiian/Pacific Islander: 2%
Asian: 4%
Other: 10%
Unknown: 9%
White: 63%

Race, 2018 Active
Referral Source for New Intakes

- **2015**
  - Medical: 41
  - School: 44
  - Hospital: 84

- **2016**
  - Medical: 53
  - School: 31
  - Hospital: 71

- **2017**
  - Medical: 65
  - School: 54
  - Hospital: 107

- **2018**
  - Medical: 85
  - School: 52
  - Hospital: 108
Reason for Discharge, 2016-present

- Completion, 438, 42%
- Moved, 165, 16%
- Disengaged, 227, 22%
- Alternative care, 119, 11%
- Death, 11, 1%
- Incarceration, 16, 2%
- Other, 62, 6%

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Death, 11, 1%
A Learning Healthcare System is defined, by the Institute of Medicine (IoM) (Institute of Medicine 2015), as a system in which, “science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with best practices seamlessly embedded in the delivery process and new knowledge captured as an integral by-product of the delivery experience.”

The term has been promoted by the IoM, whose many publications on the topic have provided a backbone to the literature (Institute of Medicine 2015). Professor Friedman describes a cycle with processes that are common to all Learning Health Systems (Friedman 2014):

![Learning Health System Cycle](image)

Figure 2. The Learning Health System Cycle. Reproduced from Friedman 2014

Institute of Medicine: [http://www.learninghealthcareproject.org/section/background/learning-healthcare-system](http://www.learninghealthcareproject.org/section/background/learning-healthcare-system)
Examples within EASA

• Targeting community education
• Early engagement strategies (EASA Connections)
• Identifying benchmarks for improvement
Early Psychosis Information Network (EPINET), NIMH

• Select **common data elements** to characterize clinical high-risk (CHR) and first episode psychosis patients (FEP), assess treatment fidelity and quality, and measure key outcomes in a standardized manner.

• Adapt promising **informatics platforms** for collecting, aggregating, and manipulating clinical encounter data collected from up to 20 academic and community-based early psychosis treatment programs.

• Establish a **data coordination center***, with appropriate security processes and privacy procedures, to store and analyze data from 500-1000 CHR/FEP patients enrolled in early psychosis treatment programs.

• Evaluate relationships among clinical features, biological measures, treatment characteristics, and symptomatic and functional outcomes to **accelerate understanding of biomarkers of psychosis risk and onset**, as well as factors associated with recovery and cure.

*Westat/NASMHPD
Where from here

- Incrementally add/refine measures
- EPINET collaboration with Washington and national
- Increased use of data in consultation and planning