Integrate Behavioral Health in the ED and Upstream

Marie Schall, Arpan Waghray, Mara Laderman, Scott Zeller, Vera Feuer, Tricia Bolender, Katie Gilligan, Heidi Beazizo

December 9, 2018
1:00 – 4:30 PM

#IHIFORUM
Nothing to Disclose

- The presenters Marie Schall, Arpan Waghray, Mara Laderman, Scott Zeller, Vera Feuer, Tricia Bolender, Katie Gilligan, and Heidi Beazizo, have no relevant financial or nonfinancial relationship(s) within the services described, reviewed, evaluated, or compared in this presentation.
Objectives for Today’s Session

After this session participants will be able to:

- Describe a theory of change and set of core measures to improve patient outcomes, experience, and staff safety while reducing avoidable ED re-visits for those ED patients with a range of behavioral health needs
- Explain key changes tested by a number of different health care organizations and results that can be achieved
- Identify strategies and ideas to test at any organization
Agenda

- Welcome and Overview
- Setting the Stage
- Our Shared Experience
- What’s Known About Better Care
- Cohen Children’s Medical Center
- Using Improvement Science to Guide Our Work
- Providence Regional Medical Center – Everett
- Discussion and Closing

Mid-afternoon Break @ 3:00 PM
Setting the Stage

- The Gap – What is the problem we are trying to solve?
- How is the Learning Community addressing the problem?
Learning Community Design

Phase 1: Content Development & Health System Recruitment
Activity: Rapid cycle research process; outreach to health systems
Output: Change package for ED, 8-10 health systems recruited

Phase 2: Prototype Learning Community
Activity: Prototype testing with 8-10 health systems
Output: Tested set of changes & 8-10 health systems with evidence of improved outcomes in pilot EDs.

Phase 3: Harvesting, Evaluation, & Planning for Scale
Activity: Harvest learning; develop scale-up plans for health systems
Output: Plan to scale work within health systems and spread to additional health systems

Real-Time Dissemination & Awareness-Building
Learning Community Design

Phase 1: Content Development & Health System Recruitment
Activity: Rapid cycle research process; outreach to health systems
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Output: Plan to scale work within health systems and spread to additional health systems

Real-Time Dissemination & Awareness-Building
Together we are creating materials and resources to support lasting change within our organizations as well as a broader dissemination to other health systems.
Participating Hospitals

- Abbott Northwestern Hospital
- Cohen Children’s Medical Center
- Hoag Memorial Hospital Presbyterian
- Kaiser Permanente Sacramento
- Maine Medical Center
- Memorial Hermann Northeast
- South Seminole Hospital
- Providence Regional Medical Center Everett
High-Level Aim

In 18 months, participating teams in the IHI Integrating Behavioral Health in the ED and Upstream Learning Community will improve patient outcomes, experience of care, and staff safety while decreasing avoidable ED re-visits for individuals with mental health and substance abuse issues who present to the emergency department.
Arrival
Screening
Safety Precautions
Risk Assessment
ED Visit
Care Transitions
Safety Planning
ED Interventions
• Standard Assessment/BH Triage
• SMART Medical Clearance
• BARS Scale
• ED Counselor/BH Specialist
• NAMI Peers (in Lobby, Connect)
• Trauma Informed Care
• Zero Suicide Interventions

ED Interventions

• (Alternative Care Settings to IP Units)
• BH Urgent Care
• Observation Unit
• Follow Up Calls
• Safety Planning (in Epic)

Downstream post-ED Care

Upstream Interventions – Access to Right Care + Community Partner Approaches
• Emergency Responders / Police Partnerships
• BH Urgent Care

Community
Post-ED Transfer/Discharge
**Upstream Interventions – Access to Right Care + Community Partner Approaches**
- Emergency Responders / Law Enforcement Partnerships
- BH Urgent Care

**ED Interventions**
- Standard Assessment/BH Triage
- SMART Medical Clearance
- BARS Scale
- ED Counselor/BH Specialist
- NAMI Peers (in Lobby, Connect)
- Trauma Informed Care
- Zero Suicide Interventions

**A Patient-Centered Perspective in ED Care Delivery**
- Help me!
- Help me find comfort and safety
- Relieve my immediate distress
- Support me in coping with my distress long term

**Post-ED Transfer/Discharge**
- (Alternative Care Settings to IP Units)
- BH Urgent Care
- Observation Unit
- Follow Up Calls
- Safety Planning (in Epic)
What’s Our Shared Experience?
Personas
Discuss at Your Tables (10 mins)

• Select one of the personas and discuss how it relates to your own context (or share your own example)
• How does the persona (example) reveal some of the needs of the patient population coming to the ED?
• How might the system be redesigned to meet those needs?
Report Out

- What insights do you gain from the personas?
- What specific issues/questions brought you here today?
- Use the Worksheet to capture your learning and action plans from the day
What’s known about better care in Emergency Psychiatry

Scott Zeller, MD
Vice-President, Acute Psychiatric Medicine
Vituity, Emeryville, CA
Assistant Clinical Professor
University of California, Riverside
Past President,
American Association for Emergency Psychiatry
Psychiatric Emergencies

- Are when a patient:
  - Is a Danger to Himself or Herself
  - Is a Danger to Others
  - Is so psychiatrically impaired one cannot provide for own food, clothing or shelter
  - Or when a patient appears at risk to evolve into one of the above conditions

Innovations in Emergency Psychiatry are driving improvements across all aspects of behavioral healthcare
Boarding Solutions Suggested

• Most suggestions – even ideas that include community-based drop-in care and mobile crisis units – still follow concept that virtually all emergency psychiatric patients need hospitalization as the only possible disposition

• Results in far too many patients being unnecessarily hospitalized at a very restrictive and expensive level of care

• Roughly equivalent to hospitalizing every patient in an ED with Chest Pain (typically only 10% of such patients get hospitalized)
Wrong Solution: Treating at the Destination instead of the Source!

• All these solutions call for more availability for hospitalizations, nothing innovative at the actual ED level.

• Change in approach needed – beginning with recognition that the great majority of psychiatric emergencies can be stabilized in less than 24 hours.

• To reduce boarding in the ED, shouldn’t the approach be at the ED level of care?
Psychiatric Emergencies are Medical Emergencies!!

• Federal EMTALA Laws already designate psychiatric emergencies as equivalent to heart attacks and car accidents – time to start intervening with the same urgency and importance as medical emergencies.

• Psychiatric Emergencies are not going to “go away”, and we shouldn’t be looking for ways to prevent mental health patients from coming to the ED – better to start preparing for these, and designing emergency programs with the recognition that ability to treat behavioral health crises are as necessary to ERs as EKG machines, oxygen and IV equipment.
Traditional Models of ED Psychiatry

- **Psychiatric Consultant to ED**
  - On-call in larger centers, teaching hospitals with psychiatry residencies
  - Psychiatry on call panel, but not available on demand = no ER coverage

- **Visiting Consult Team**
  - County or Regional Agency, including mobile crisis team
  - Evaluation Team from Psychiatric Hospital

- **Defined Area within ED**
  - May have regular staff, psych-trained nurses and active treatment
  - Often merely holding area for patients awaiting hospitalization

- **Little to no Psychiatry in the ED**
  - “Find them a bed”
Missing from too many traditional models

• Little or no timely access to mental health prescribing professionals

• Patients simply being held, with no active treatment in the ED

• Consultations based on a ‘snapshot’ without possibility of treatment and re-evaluation

• ED is typically not a healing environment, can actually make patients worse, more agitated or more despondent

• Psychiatric emergency patients thought of as a burden rather than part of standard ED patient population, sometimes feared or held in disdain by staff
Real Solutions

Within General ED

- Commencement of Care
- Telepsychiatry

Output Alternatives

- Hospital: Observation units, EmPATH Units
- Community: Crisis Residential Units
“Zeller’s Six Goals of Emergency Psychiatric Care”¹

- Exclude medical etiologies and ensure medical stability
- Rapidly stabilize the acute crisis
- Avoid coercion
- Treat in the least restrictive setting
- Form a therapeutic alliance
- Formulate an appropriate disposition and aftercare plan

Beginning Treatment in the ED

• Many psychiatric crises can resolve in hours rather than days with no need for inpatient admission

• Prompt medications can reduce symptoms of psychosis, paranoia, agitation, aggression, anxiety to subacute levels while in the ED

• Suicidality can resolve with time, sobriety, end of withdrawal symptoms

• Many treatments can start with ED physicians using standard protocols; patients can improve significantly by time of consultation or disposition decisions – greatly increases diversions compared to “wait for psych”
On-Demand ER Telepsychiatry

24/7 access to a board-certified psychiatrist via high definition, two-way video conferencing.
Patient Benefits

• 24/7 access to board certified psychiatrists
• Improved Patient Satisfaction
• Focused on high quality, timely assessments
• Full evaluation, risk assessment, diagnosis, treatment and disposition recommendations
• Care plan collaboration with in-person providers
Hospital Benefits

- Address current physician shortage challenges
- Diverse care settings ED, ICU, inpatient, SNFs, and more
- Pay-per-consult model, cost-effective
- Improve ED capacity and throughput with more timely care
- Integration with providers across care settings
- Improve appropriate transfers and admissions with psychiatric evaluation and documentation
Improving Care with Telepsych

**DECREASE Up to 80% in mental health patients’ ED boarding time**

**DECREASED** admissions to Inpatient Units and LOS

**IMPROVED** Coordination between psychiatrists and consulting providers
EmPath Approach

Emergency Psychiatric Assessment Treatment & Healing
Physical Space Design

Key Take-Away: Calming environment separate from main ED that prioritizes healing and access to care

- Large, open milieu space where patients can be together in the same room – high ceilings and ambient light. All can easily self-access food, drinks, linens, phones, books, games, TV. Ample room for walking about or pacing.

- Space to move about and engage in socialization, discussion, and therapy. Some feature outdoor relaxation gardens

- “Per chair” model, outfitted with recliners. Space recommendation: 80 sq ft per patient; 36 sq ft patient area around the recliners

- Open nursing station w/instant access to staff - No “bulletproof Plexiglas” separating the patients

- 1-2 Calming Rooms (unlocked spaces) - Avoid locked rooms or restraints
Physical Space Design
Patient Benefits

• Immediate care setting change from chaotic ED to a calming, “trauma-informed” environment with restraint elimination

• Coercion avoided, all about engagement and individual decisions; staff available around the clock. Peer support specialists onsite.

• Multi-disciplinary team treatment and resources available, discharge planning, family contact, outpatient provider connections

• Rapid evaluation by a psychiatrists after arrival, comprehensive care plan development; patients may stay up to 23 hours till dispo
Hospital Benefits

- EMTALA-compliant for voluntary/involuntary mental health crises; take all medically-stable patients immediately from ER, even high acuity, all levels of patients can benefit from the “Psych ICU”

- Not alternative destination to inpatient, but a separate “psych ER” where all evaluation, treatment and dispositions are made

- Move behavioral health care out of the ER into more appropriate space for healing, opening up beds in the ER for medical patients

- **Significant reduction in admission rates, up to 80%, as patients respond very well to site and interventions**

- Even inpatient units benefit -- eliminate unnecessary, denied pay 1-2 day inpatient admissions
Changing Delivery of Care in the ED

• Don’t need EmPath or Telepsych to improve today

• All ED providers and staff can assist in better, modern, evidence-based, trauma-informed care ASAP
Questions?
Stretch Break!
ED & Up Learning Collaborative:
Cohen Children’s Medical Center

Vera Feuer, MD
Northwell Health - New York

- New York State’s largest health care provider and private employer
- 23 hospitals, 6,500+ hospital and long-term care beds, nearly 15,000 affiliated physicians
- 650 outpatient facilities
QUEENS COUNTY

- Second-largest borough and county in NY
- Most ethnically diverse urban area in the world (48% foreign-born)
- 49.5% Latin American (Puerto Ricans 4.6%, Mexicans 4.2%, Dominicans 3.9%. Central Americans 2.4% South Americans (Ecuador, Columbia) 9.6%)
- 33.5% Asian Chinese 10.2% Koreans (2.9%), Filipinos (1.7%), Japanese (0.3%), Thais (0.2%), Vietnamese (0.2%), Indonesians and Burmese 0.1%, Indians (5.3%), Bangladeshi (1.5%), Pakistanis (0.7%), and Nepali (0.2%).
- 14.8% European Italian: 8.4%, Irish: 5.5%, German: 3.5%, Polish: 2.7%, Russian: 2.3%, Greek: 2.0%
- 1.8% African

- 44.2% English; 23.8% Spanish 30% other language speaking households
- 9% Jewish
- 31.5% households w/children
- 46.9% married couples
- 16.0% single female parent
- 31.3% were non-families
- Median household income $40,000
- 20% below the poverty line including 18.8% of those under age 18
## Our Project Team

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Name and Credentials</th>
<th>Title</th>
<th>Email</th>
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</thead>
<tbody>
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<tr>
<td>Patient/Family</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
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Our Team Aims

1. Transition from single consultant model to blended collaborative care model with multidisciplinary team

2. Developed Ambulatory Crisis Services to support and link high-risk families

3. Established constructs for receiving feedback from patients and staff

4. Engaged community partners to streamline and improve communication and linkage

5. Providing brief interventions and follow up calls to high risk patients

6. Educational initiatives for staff: DBT skills training, Agitation management simulations
18-Month Aims

Ease access
- Connect with appropriate level of care
- Collaborate and engage community partners
- Utilize BH Urgent Care to bridge patients to ongoing care

Reduce suffering
- Maintain safe ED processes
- Incorporate use of evidence based screening and scales

Build resilience
- Educate staff and families
- Standardize skill training, safety planning, lethal means restriction
- Elicit feedback, engage and empower families and staff

Create Hope and eliminate stigma
- Create trauma informed culture
- Engage community partners (NAMI, MHA-NY) in process
- DBT skills training for staff
6-Month Aims

Ease access

• Continue testing referral acuity pathway and phone follow up for highest risk
• Utilize BH Urgent Care to bridge patients to ongoing care
• Track linkage (initial, 30 day, 6 month) of patients – fund and recruit staff to help
• Work on streamlined workflows with more partner agencies

Reduce suffering

• Maintain safe ED processes (examine impact of nursing triage scale)
• Incorporate use of evidence based screening and scales

Build resilience

• Educate staff and families (written education materials, website development)
• Standardize skill training, safety planning, lethal means restriction (IRB approval and standardized study)
• Elicit feedback, engage and empower families and staff (continue experiments with feedback, engage children)

Create Hope and eliminate stigma

• Create trauma informed culture (use simulations, standardize curriculum)
• Engage community partners (NAMI, MHA-NY) for staff training
• DBT skills training for staff (ongoing, will need reinforcement in practice)
### Our Measures

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<thead>
<tr>
<th>Measure</th>
<th>Details</th>
<th>Links</th>
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<tbody>
<tr>
<td>% readmissions (7 days/ 30 days)</td>
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<tr>
<td>ER volume, BH Urgi volume (follow up visit # /initial visit #)</td>
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<tr>
<td>Number of in system and outside system community agencies engaged</td>
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<tr>
<td>% of follow up appointments made</td>
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<tr>
<td>% of follow up appointments attended first appointment (within 30 days)</td>
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<tr>
<td>Pt experience of care (addressed our concerns, respect and dignity,</td>
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<td>communication, understood what to do after)</td>
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<td><a href="https://redcap.northwell.edu/surveys/?s=4TRJERCMNC">https://redcap.northwell.edu/surveys/?s=4TRJERCMNC</a></td>
</tr>
<tr>
<td>Staff perception of care (role on team, the care we provide, ED- BH</td>
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<tr>
<td>team work, family satisfaction)</td>
<td></td>
<td><a href="https://redcap.northwell.edu/surveys/?s=9HTMFRXJJE">https://redcap.northwell.edu/surveys/?s=9HTMFRXJJE</a></td>
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Changes We are Testing

### Ease of access
- Tagging high risk pts for follow up visits and phone calls to ensure linkage and provide support
- Tagging pts with complex care issues and liaising with outside providers to ensure linkage
- Utilizing Urgi to refer high risk pts for bridge visits
- Outpatient appointment streamlining with CBO’s
- HIE notification for pediatricians
- School/pediatrician referral form pilots

### Reduce suffering
- Mental health triage
- Split flow
- Collaborative team care

### Build resilience
- NAMI groups for families
- Pamphlets for our services (ER/ BH Urgi)
- Pt education materials
- Formal safety planning and lethal means restriction education and follow up
- Collecting family feedback
- Staff feedback

### Create Hope and reduce Stigma
- DBT skills training for staff
- Simulations (agitation curriculum development)
- Trauma and cultural competence education
Our Results

CCMC ADMISSION RATE FROM 2011-2018

CCMC BH VOLUME 2011-2018

BH URGENT CARE VOLUME

% OF PATIENTS RETURNING TO ED WITHIN 7 DAYS

- Admissions
- Transfers
- Discharges
- Totals
- Telepsychiatry
- BH Urgi
- Medical Admit

- Initial evaluations
- Follow ups

- % of patients returning to ED within 7 days
### Patient/Family Experiences

#### ID/CC
- John is a 14 year old single Chinese American boy, living with mother and grandmother (parents in process of divorce), 10th grade student with IEP, hx of social and separation anxiety, OT, speech tx @ school but no prior treatment, presents to the emergency department after CPS alerted due to school refusal and medical neglect.

#### DBT skills training
- In the Emergency Department initially he is guarded and even agitated, escalates to the point of screaming and punching the doors, but after staff engages John, he is able to de-escalate verbally and even willing to do some breathing exercises with the staff.

#### Safety planning
- During the assessment John shares his depressive symptoms, peer and family conflicts, academic struggles and sleep issues with the provider, but despite suicidal thoughts, he reports that he feels his mother would be devastated if he would hurt himself, so he would never do it. After working with the provider he is able to create safety plan including triggers, distractions, contacts and crisis plan.

#### Lethal means restriction, family education
- His mother engages in safety planning and lethal means restriction education and but is hesitant about treatment and worried about shame and impact on son's future. She does not feel comfortable starting medications, but receives psychoeducation, including written materials, resources and a phone number for NAMI local crisis contact.
• During the ED visit the BH social worker sends email to partnering agency requesting referral and intake appointment. The agency provides intake, but informs team that the prescribing MD will not see patient for another 3 weeks.

• During the ED visit the provider reaches out to school as well as patient’s pediatrician and discusses plan for referral as well as recommendations for medication. The pediatrician reports that she has a good rapport with mother and will be reaching out to family to reinforce need for treatment. The school SW reports that she will also work with mom and check in on John.

• Mom and John decline the offer for hospitalization, but agree to a follow up in 2 days in BH Urgent Care with plan of getting referral for care near their home. They return for visit and after reading the materials provided and talking with their school and primary care providers they agree to start an SSRI.

• SW calls John’s mom 1 week after initial visit. John’s mom reports that she has not yet been able to make intake appointment and she has not yet secured medications and sharps in the home. SW reinforces importance of follow up and safety recommendations and schedules them for one more return visit in BH Urgent Care. By this second crisis visit John started taking the medication, attended his intake, so team is able to provide handoff to new outpatient providers and he continues to attend treatment.
Case Discussion

Health status:
• 14 years old
• No previous treatment
• No substance use

Life/family status:
• Lives with mother and maternal grandmother, father in China
• Has not attended school for 4 months
• Has IEP with OT, Speech Tx, counseling
• Socially withdrawn, no friends
• Daily panic attacks with agoraphobia
• CPS involvement due to school refusal and medical neglect

Current relationship with the health care system:
• Has a pediatrician, but has not gone in 2 years
• Mother has been told of potential ASD dx by PCP and school
• No other previous mental health visits
• Brought to ED by CPS
Questions
Additional Questions

- Did anything surprise you?
- What experience can you share?
- What new ideas did you hear?
- How might you apply those ideas back home?
Break

15 Minutes
Using Improvement Science to Guide our Work

Tricia Bolender
Session Objectives

After this session, participants will be able to:

- Understand how we are using the Model for Improvement to harness our learnings and collectively improve
- Understand how to link PDSAs to accelerate learning and improvement
- Use data to guide further improvement efforts
Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Act  Plan  Study  Do

Model for Improvement

Why aims matter
Why aims matter
Redesigning the System: Our Aim

Driver Diagram

- **Driver**
  - Ease Access
  - Reduce Suffering and Decrease Addiction
  - Build Resilience
  - Create Hope and Eliminate Stigma

- **Primary Drivers**
  - Build and leverage partnerships with community-based services
  - Coordinate and communicate between ED and other health care & community-based services
  - Standardize processes from ED intake to discharge for a range of mental health & substance abuse issues
  - Engage and capacitate patients and family members to support self-management
  - Create trauma-informed culture among ED staff

In 18 months, participating teams will improve patient outcomes, experience of care and staff safety while decreasing avoidable ED re-visits for individuals with mental health and substance abuse issues who present to the emergency department.
Aim: Providence Everett

18-month Aim
- 10% reduction in mean ED LOS for BH patients
- ED Crisis Counselor 10% reduction in cycle time – medically clear to MHE begun
- 20% overall reduction in staff assaults
- % utilization of the suicide screen tool for patients seen for a primary mental health concern

6-month Aim
- 20% Reduction in Staff Assaults
- 20% Reduction in duration of restraints
- % utilization of BH patients with BARS assessment
- % of staff who have completed AVADE training
Aim: Cohen Children’s

Ease access
- Connect with appropriate level of care
- Collaborate and engage community partners
- Utilize BH Urgent Care to bridge patients to ongoing care

Reduce suffering
- Maintain safe ED processes
- Incorporate use of evidence based screening and scales

Build resilience
- Educate staff and families
- Standardize skill training, safety planning, lethal means restriction
- Elicit feedback, engage and empower families and staff

Create hope and eliminate stigma
- Create trauma informed culture
- Engage community partners (NAMI, MHA-NY) in process
- DBT skills training for staff
Characteristics of an Effective Aim

➢ As clear as a vision

➢ As motivating as a mission

➢ As targeted as a bulls-eye

➢ As concise as an elevator speech
Components of an Aim Statement

**What?** State the focus of your improvement effort (make sure it relates to the fundamental customer need)

**How good?** Declare a numerical goal for outcomes (ambitious but achievable)

**By when?** Specify the timeframe

**For whom?** Name the customers or population of focus

**Where?** Define the process or system you want to improve (what is the scope?)
What we’re learning

• Importance of aim to guide improvement
• Challenges (and importance!) of quantifying aims
• Faster learning through development of 6 month aims
Model for Improvement

Collaborative Measures

Driver Diagram

Primary Drivers

- Build and leverage partnerships with community-based services
- Coordinate and communicate between ED and other health care & community-based services
- Standardize processes from ED intake to discharge for a range of mental health & substance abuse issues
- Engage and capacitate patients and family members to support self-management
- Create trauma-informed culture among ED staff

Process Measures

- % follow-up appointment made with community based provider*
- % successfully completed first appointment with community based care provider*
- ED length of stay (broken out into 2-3 sections)
- Patient experience of care (respect, listening and communication)*
- % families who participate in/receive care plan*
- Staff safety perception*
- % of code greys that end in restraints*

Outcome measures:

- Patient to staff assaults
- Daily duration of restraints
- % admitted to inpatient
- ED revisits in 7 days
- % addressed issues patients came with
- # of suicide and OD deaths 72 hours post-ED discharge*

In 18 months, participating teams will improve patient outcomes, experience of care and staff safety while decreasing avoidable ED re-visits for individuals with mental health and substance abuse issues who present to the emergency department.
Collaborative Outcome Measures

% Admitted to Inpatient (Avg)

- % of patients with MH/SA issues admitted to inpatient

Total # of Patient to Staff Assaults

- # Patient to Staff Assaults
- Baseline median

# of Suicide & OD Deaths 72 Hrs Post-ED Discharge

- # of Suicide and OD Deaths 72 Hours Post-ED Discharge

Avg Daily Duration of Restraints

- Average time restraints used within the ED for patients...

ED Revisits in 7 Days

- # of patients with MH/SA issues who revisited ED 7 days with MH/SA...

“To what extent did we address your concerns?”

- % patients who report a 4 or 5 to the question: “To what extent..."
Deeper Dive: ED Recidivism

Cohen Children’s

% OF PATIENTS RETURNING TO ED WITHIN 7 DAYS

% of patients returning to ED within 7 days

- SEP-17: 7%
- OCT-17: 6%
- NOV-17: 5%
- DEC-17: 4%
- JAN-18: 3%
- FEB-18: 4%
- MAR-18: 5%
- APR-18: 6%
- MAY-18: 7%
- JUN-18: 8%
- JUL-18: 7%
- AUG-18: 6%

0% 1% 2% 3% 4% 5% 6% 7% 8%
What we’re learning

• Use of measures to guide improvement: required and test measures

• Importance of both quantitative and qualitative measures

• Use of monthly workgroups to deep dive into process measures
Model for Improvement

So much testing across collaborative!

Cohen Children’s Medical Center:

- **Ease access**
  - Tagging high risk pts for follow up visits and phone calls to ensure linkage and provide support
  - Tagging pts with complex care issues and liaising with outside providers to ensure linkage
  - Utilizing Urg to refer high risk pts for bridge visits
  - Outpatient appointment streamlining with CBO’s
  - HE notification for pediatricians
  - School/pediatrician referral form pilots

- **Reduce suffering**
  - Mental health triage
  - Split flow
  - Collaborative team care

- **Build resilience**
  - NAMI groups for families
  - Pamphlets for our services (ER/ BH Urg)
  - Pt education materials
  - Formal safety planning and lethal means restriction education and follow up
  - Collecting family feedback
  - Staff feedback

- **Create Hope and reduce Stigma**
  - DBT skills training for staff
  - Simulations (agitation curriculum development)
  - Trauma and cultural competence education

Providence Everett:

**Changes We are Testing**

<table>
<thead>
<tr>
<th>Planning</th>
<th>In Process</th>
<th>Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMART Medical Clearance</td>
<td>Psych trained ED Nurses</td>
<td>BARS</td>
</tr>
<tr>
<td>Mental Health Care Plans</td>
<td>BH Throughput analysis</td>
<td>Medication Protocol based on BARS</td>
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<tr>
<td>Non-Medication Interventions</td>
<td>Psych consults in the ED</td>
<td>BH Track Board Utilization</td>
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<td>Community ED Shadows</td>
<td>Trauma Informed Care Training</td>
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<td>Peer Support</td>
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<tr>
<td>Feedback Form for Patient Experience</td>
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<td>Suicide Screening for BH patients</td>
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<tr>
<td>Assigning Psychiatric Specific Triage Acuity</td>
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</tbody>
</table>
## PDSAs focused on follow-up and linkage

### Cohen Children’s Medical Center:

<table>
<thead>
<tr>
<th>PDSA</th>
<th>PLAN</th>
<th>DO</th>
<th>SEE</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tagging high risk pts for follow up visits and phone calls to ensure linkage and provide support.</td>
<td>Calling high risk patients is helpful to families and helps linkage.</td>
<td>Transitioned task to SW, created script and checklist for them. Calls going well- 60% tagged as high risk, low percent answers this month (23%)</td>
<td>Much improvement in tagging (~90%). SW still keeping up with volume of calls, also logging time calls take. (average 5 minutes) Parents appreciative of call. Calls caught referral needs (given referral didn’t work out) multiple times. Also helpful for providing further guidance.</td>
<td>Adopt current tagging, continue reinforcing with providers. Adopt SW calling. Adapt script. Adapt time of day calling (test) Brief survey with each call- draft questions (what’s best time to call? What else would be helpful after visit. Follow up on safety plan and lethal means restriction recs.</td>
</tr>
</tbody>
</table>
The sequence of improvement

- Theory and Prediction
  - Developing a change
  - Testing a change
- Make part of routine operations
- Implementing a change
- Test under a variety of conditions
- Sustaining improvements and Spreading changes to other locations
- Data are used throughout the sequence
**Example: BARS PDSA**

<table>
<thead>
<tr>
<th>PDSA #</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; PDSA</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; PDSA</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; PDSA</th>
</tr>
</thead>
</table>
| **Size** | • 1 nurse  
• 1 patient  
• 1 shift | • 1 nurse  
• 5 patients  
• 1-2 shifts | • Medication protocol  
• 5 nurses |
| **Learnings** | • We typically would restrain for a level 6 but the BARS scale in EPIC only had restraints for a 7  
• It was easy to understand  
• We needed different assessment frequencies based on level due to constantly changing behaviors  
• Nurse reported it forced a higher level of engagement | • MD’s found the BARS level difficult to find in EPIC | • Challenging to remember to do  
• Put together a promotion plan – submit a story about when BARS helped and enter to win a coffee card  
• MD and Crisis Counselor hesitant to medicate given possibility of impacting involuntary commitment assessment by country  
• Implemented weekly review with Snohomish county to determine if medication affecting assessment |
Example: Providence Everett

### Count of BARS assessments

The chart illustrates the rate of BARS assessments taken in the ED for patients who meet the population identification criteria. The numerator is the sum of encounters where 1 or more BARS assessments are documented. The denominator is the sum of encounters where the patient is identified in the ED BH population. (ED Patients identified as ED Ready for BH (YES) = Sum of BH Pop Flag).

**Measure Names**
- BARS rate
- Count of BARS_Value

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The chart shows the ED patient count with a BARS assessment by month, with a notable increase in June following BARS education at ED Staff Meetings on May 23, 24, 29, 31.
What we’re learning

• Sequence of testing: going from small tests of change to larger tests with increasing confidence

• Sharing learnings across the collaborative

• Testing across all of our primary drivers
Questions?

About Us

Began in the Pacific Northwest in 1856 by Mother Joseph
Our Project Team

Back Row (Left to right)
• **Liga Mezaraups** – Sponsor
  Chief Nursing Officer
• **Heidi Beazizo** – Day to Day Lead
  Program Manager
• **Julie Zarn** – Content Expert
  Regional Direction ED, Trauma
• **Louise Gilfillan** – Measurement Lead
  Manager, Clinical Analytics
• **Ryan Keay** – ED Provider
  Medical Director, ED

Front Row (left to right)
• **Laura Knapp** – Behavioral Health
  Integration
  BHI Manager
• **Gale Springer** – Content Expert
  Clinical Nurse Specialist Psych ARNP
• **Katie Gilligan** – Community Provider
  Psychiatrist
• **Emily Pinkham** – Day to Day Lead
  ED Clinical Nurse Specialist

Not Pictured
• Lee Wilner, ED Crisis Counselor
Our Population: Snohomish County

**Total Population:** 836,638

**Race/Ethnicity Distribution**
- White, 74.5%
- Asian, 10.7%
- Black/African American, 3.2%
- Other Race, 4.4%
- Pacific Islander, 0.6%
- Population of 2 or more races, 5.2%
- American Indian/Alaska Native, 2.67%
- Other Government, 0.5%

**Payer Mix**
- Medicare, 53.76%
- Medicaid, 17.57%
- Commercial Payer, 25.57%
- Other Government, 2.67%
- Self Pay, 0.50%

**Household Income**
- Less than $15,000: $20,070
- $15,000-$24,999: $17,296
- $25,000-$34,999: $19,746
- $35,000-$49,999: $31,292
- $50,000-$99,999: $100,806
- $100,000 and above: $122,302

**Median Age**
- Male: 38.9
- Female: 40.7

**Male and Female Proportion**
- Male: 49.94%
- Female: 50.06%
“We have a safe place for severely psychotic patients but the ones who aren’t violent... we seem to ignore them. We usually remember to give them food, but we don’t treat their medical problems.”

“They tend to be forgotten. I think we just let them sleep because we have more medically ill patients. We just forget about them until they become frustrated and combative.”

“Even though we have seclusion rooms, they’re only really good for incredibly violent patients. One day we had an adolescent patient back there and it felt like torture.... I would never want my adolescent back there with nothing to do. It’s like solitary confinement.

“There are hardly any medical psych facilities, it’s like we have to play their game to get patients admitted there... we do such large workups sometimes, even MRIs before we can admit patients for psychiatric treatment.”
Perspectives of Our Patients & Family/Caregivers

Trauma Informed Staff:

“I’ve been told in the past by nurses “I don’t get it” or “you should just love life” and it truly feels a bit ostracizing. I understand that not everyone has a deep understanding of how mentally ill patients function”

“Wants staff to take patients seriously and recognize patients “have schizophrenia and are not a monster”

“There are many negative assumptions made about families of individuals with substance abuse disorders. I felt that these assumptions colored interactions."

Prescriptions:

“...see that something was clearly wrong with him, but they don’t give any medications in the ED for psychiatric issues"

“Only give meds for anxiety, but if it’s more than that they just refer you to a psychiatrist. Need med help right away.”

Discharge:

“See the biggest barriers are lack of resources outside of the ED, generally people are just given the local crisis line number and sent back to their medical doctor.”

“Need real resources accessible and readily available in 1-2 days”

“The ED was a sort of ‘holding’ prior to being hospitalized at an inpatient facility. I believe it would be helpful for individuals at the hospital to receive some type of information on how to take care of ourselves when we were transferred to either the next hospital or prior to going home.”

Care:

“The care that was received was more stabilization care rather than anything else. I believe that it’s important for those that are mentally ill to feel less like they are being “held” and more like they are being cared for."

“...the nurses seemed to feel like it wasn’t their issue to deal with and just brushed the patient off waiting for the social worker to make the interventions.”
Perspectives from Our Chart Reviews

5 Charts were reviewed
(all had visits within the last 30 days; February 1\textsuperscript{st} - March 3\textsuperscript{rd})

- In all 5 cases, follow up appointments were recommended with specific providers (4 had primary care providers, the 1 who did not had been fired from her primary care provider.)

- All 5 returned with either suicidal/homicidal ideations or substance abuse (identical to their original presenting complaint)

- 3 had over 20 ED visits each in the prior 12 month period; all 3 of these had periods of homelessness.

- 3 of the 5 did not have frequent vital signs during their ED visit.

- 3 returned within one week of discharge; 2 of those within 1 day
“Documentation that gets sent back to us could be more streamlined. The hospital is on Epic and we use Athena Health as our EHR. We often get 4 separate fax notices, some of them with unhelpful or redundant information.”

Community Health Provider

“There was a case where a patient just picked up a controlled substance Rx from us and got another one at the ED.”

Community Health Provider

The quality of the patient transfer experience is dependent on the willingness and interest of the receiving RN to receive an oral report of our experience with this particular patient. At times, it can feel as if the nurses do not believe our report contains information that they can use in their care.

Everett Fire District
Known Challenges

• Long length of stay
  – Long wait for mental health evaluation

• No Inpatient Psychiatric unit

• Lack of standard medical clearance for IP admission

• Low staffing

• Inconsistent restraint documentation

• Low reporting of staff assaults

• Needed a way to identify our behavioral health population

• Low access for post discharge follow up – especially for Medicare and Medicaid

• Lack of community alternatives to Inpatient
Our Team’s Aims

In 18 months, we will better leverage our community partnerships to decrease our ED monthly mean LOS for behavioral health patients by 10%.

- Goal #1: In order to improve communication, develop a shared understanding of our community partners roles and influence on the patient’s journey while agreeing on a shared language.
- Goal #2: Standardize the ED experience/protocols in order to reduce the throughput cycle time by 10% - medical clearance to mental health evaluation complete.
- Goal #3: Research and implement improved transitions of care in order to reduce disposition to departure LOS by 10%.
- Goal #4: Research and implement a standardized suicide screen tool

Within 6 months, we will standardize screening to facilitate earlier appropriate treatment to decrease the duration of restraints and staff assaults by 20%.

- Goal #1: Select and implement standardized screening tool
- Goal #2: Develop clinical protocols based on screening outcome
- Goal #3: Train 40% of ED staff on AVADE (requirement to complete by 12/31/2018)
Our Measures

18-month Aim
• 10% reduction in mean ED LOS for BH patients
• ED Crisis Counselor 10% reduction in cycle time – medically clear to MHE begun
• 20% overall reduction in staff assaults
• % utilization of the suicide screen tool for patients seen for a primary mental health concern

6-month Aim
• 20% Reduction in Staff Assaults
• 20% Reduction in duration of restraints
• % utilization of BH patients with BARS assessment
• % of staff who have completed AVADE training
First 6 months
Define Population

**WIN:** Defined population using EPIC behavioral heath track board

Clinician indicates a need for BH evaluation – that FLAG is what we use to define all of our dashboards
First 6 months
Define Population

LIP or RN or Crisis Counselor; must be clicked for all patients requiring BH Evaluation.

LIP: Click “Ready” when Medical Eval is clicked “Complete”
Crisis Counselors ONLY:
Click “In Process” just before going to see patient;
Click “Completed” once a disposition decision is made (i.e. detained; transfer; admit; send home)

Crisis Counselor ONLY:
Click appropriate legal status as applicable.

LIP or RN or Crisis Counselor; must communicate if risk of violence.
First 6 months
Community Partner Launch

Collaboration
The action of working with someone to produce or create something

Investment
An act of time, effort, or energy to a particular undertaking with the expectation of a worthwhile result
First 6 months
Community Partner Launch

We realized we had some housekeeping to do before all of this energy could be leveraged
First 6 months
Build measurement dashboard

- Total Population
- Admit counts
- Returns within 7 days
  - Arrive to medically clear
  - Medically clear to mental health eval complete
  - Disposition to departure
- Involuntary holds
- Restraint Use
- BARS use
- BARS + Medication
First 6 months
BARS + Medication PDSA

**Plan:** Implement nursing assessment of level of agitation and introduce an agitation-based medication algorithm to decrease time in restraints and staff/patient injury.

**Do:** Tested the Behavioral Activity Rating Scale (BARS) for ease of use.

**Study:** The nurses found BARS easy to complete and thought it provided an accurate patient description.

**Act:** Adopted the BARS scale throughout the ED.

**Do:** Tested the BARS PLUS medications algorithm.

**Study:** The nurses and providers found the medication algorithm easy to use and helpful in decision making.

**Act:** Adopted the BARS PLUS Medications Algorithm.

**Learnings:**
- BARS levels are difficult for providers to see (enlisted IT assistance).
- Medication algorithm difficult to obtain (placed at each provider’s desk and on department website)
- Creating order sets for EPIC ordering ease
- Needed to collaborate closely with the county to ensure medication was not impacting ability to assess acute needs
First 6 months
Psych in the ED

Average LOS
Patient's LOS
First 6 months
Suicide Screening

**Plan:** Select an evidence based tool for suicide screening – Columbia Suicide Severity Rating Scale (CSSRS). Determine that all patients who present to the ED with a primary Behavioral Health Issue will be screened.

**Do:** Educated Staff on how to find the CSSRS screen in EPIC and how to complete the screening Tool. Helped staff to identify what a positive screen looked like and next steps for the RN to ensure patient safety.

**Study:** Monitor the CSSRS completion rate as well as the use of a patient safety attendant (1:1 sitter) for those with a positive screen. Also reviewing cases where a nurse may feel a patient safety attendant may be contraindicated.

**Act:** TBD

**Learnings:**
- We may have underestimated the staff resource requirements based on the need for patient safety attendants.
Current and Future Initiatives

Build and leverage partnerships with community-based services

- Weekly calls with county crisis counselors
- Community Needs Assessment based on patient gaps
- Community partner ED shadows

Coordinate and communicate between ED and other health care & community-based services

- Behavioral Health Steering Committee with community-lead subgroups
- BH Urgent Care
- Next Day Appointments

Standardize processes from ED intake to discharge

- Smart Medical Clearance
- Parallel assessments by MD and Crisis Counselor
- Psychiatric Triage (Australian)
- Suicide screening

Engage and capacitate patients and family members to support self-management

- Mental Health Community Care Plans
- Peer Support

Create trauma informed culture among ED staff

- Feedback form (survey)
- Tribal involvement
- Psychiatric Nurse Cohort
- ACES training
- Non-medical comfort interventions

IN PROCESS
IN PLANNING
Key Learnings

- Collaborative drove improved focus and attention
- Compelled internal engagement and connections
- Drew increased support for Psych services in the ED
- Many resources (internal and external) exist that aren’t aligned or unidentified
- Data collection is hard and people dependent
- Change is hard – sustainment and consistency require continued focus
- Scale is hard
Questions?
Additional Questions

• Did anything surprise you?
• What experience can you share?
• What new ideas did you hear?
• How might you apply those ideas back home?
Final Reflections

• What are the key take-aways from today?
• What insights did you gain?
• What outstanding questions might you have?
Join Us!

• Friends of ED & UP
  – Meets quarterly via Webinar
  – Updates on Learning Community
  – Shared Learning about promising practices
  – Contact Deborah Bamel at dbamel@ihi.org