HRET HIIN Virtual Event
Foundations for Change Fellowship
Wednesday, March 15
11:00- 12:00 p.m. CT
Welcome and Introductions

Mallory Bender, Program Manager, HRET
### Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter/Notes</th>
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<tbody>
<tr>
<td>11:00-11:05</td>
<td>Welcome and Introduction</td>
<td>Mallory Bender, HRET</td>
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<tr>
<td>11:05-11:20</td>
<td>Action Period Discussion</td>
<td>Kathy Duncan, IHI Director</td>
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<tr>
<td></td>
<td>• How about those tests?</td>
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<td></td>
<td>• Develop/adapt a driver diagram</td>
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<td>• Review the vital processes in the Model for Improvement</td>
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<td>11:20-11:35</td>
<td>How Will We Know That a Change is an Improvement</td>
<td>Kathy Duncan, IHI Director</td>
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<tr>
<td></td>
<td>• Describe why measurement is vital in improvement</td>
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<td>11:35-11:50</td>
<td>Family of Measures</td>
<td>Kathy Duncan, IHI Director</td>
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<td></td>
<td>• Video – Bob Lloyd</td>
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<td></td>
<td>• Identify 3 kinds of measures: process measures, outcome measures, and balancing measures</td>
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<td>11:50-11:55</td>
<td>Action Period Assignment</td>
<td>Kathy Duncan, IHI Director</td>
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<td>• QI 105 Lesson 2 – Change Psychology and the Human Side of Quality Improvement</td>
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<td>• QI 105 Lesson 3 – Working with Interdisciplinary Team Members</td>
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<td>• Develop effective measures for your own personal improvement project</td>
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<td>11:55-12:00</td>
<td>Bring It Home</td>
<td>Mallory Bender, HRET</td>
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554 Enrollees!

1004 Courses Completed!

1257 Credit Hours Collected!
<table>
<thead>
<tr>
<th>Date</th>
<th>Session Title</th>
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<tbody>
<tr>
<td>January 18</td>
<td>The Case for Improvement</td>
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<tr>
<td>February 1</td>
<td>Take your Aim – What are We Trying to Accomplish?</td>
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<tr>
<td>February 15</td>
<td>What Changes Can We Make That Will Result in Improvement?</td>
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<td>March 1</td>
<td>Map Your Course</td>
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<td>March 15</td>
<td>How Will We Know That a Change is an Improvement?</td>
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<td>March 29</td>
<td>Empower Teams to Engage in Improvement</td>
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<td>April 12</td>
<td>Know Yourself, Know Others</td>
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<td>May 10</td>
<td>Multiple Cycles, Multiple Tests</td>
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<td>June 14</td>
<td>Manage Time and Attention</td>
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<td>July 12</td>
<td>Be the Coach</td>
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<td>August 9</td>
<td>Treasure Chest: Shadowing a Patient</td>
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<td>September 13</td>
<td>Identify and Spread Improvement</td>
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<td>October 11</td>
<td>Sustaining Improvement</td>
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<td>November 8</td>
<td>Celebration</td>
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Objectives for Today

• Review the essential processes in the Model for Improvement
• Describe why measurement is vital in improvement
• Identify three kinds of measures:
  o Outcome
  o Process
  o Balancing
• Develop effective measures for your improvement project
Principles for Testing a Change

1. Test on a small scale
2. Collect data over time
3. Build knowledge sequentially with multiple PDSA cycles for each change idea
4. Include a wide range of conditions in the sequence of tests
• From the list below, choose which of these are tests (think about which of the below is answering a question the team may have):
  a. Rapid response team to respond to all patients in ED who screen positive for sepsis this week
  b. Educate all registrars on Buzz words of complaints indicating a possible stroke
  c. Accurately assess patients for fall risk
  d. Attach CL insertion checklist to CL insertion kit
Check the tests...

- Rapid response team to respond to all patients in ED who screen positive for sepsis

- Test on a small scale
- Collect data over time
- Build knowledge sequentially with multiple PDSA cycles for each change idea
- Include a wide range of conditions in the sequence of tests

- Small: one team, one area, start with one triage nurse — then 2, then day shift, then night shift
- Time to respond, volume of patients screening positive, time from triage to treat for each call
- Response improvement, Time to treat improvement,
- Time of day, day of week, triage nurse, treatment time
Check the tests...

Attach CL insertion checklist to CL insertion kit

- Test on a small scale
- Collect data over time
- Build knowledge sequentially with multiple PDSA cycles for each change idea
- Include a wide range of conditions in the sequence of tests

- one high volume unit, two checklists to two kits, then add checklist to 5 insertion kits, then 10, then all
- Completion of checklist, Response from providers, Compliance with all components - all or none,
- How to attach, bold colors, format of checklist, return of checklist
- Time of day, day of week, Provider inserter, treatment time, sequence high volume units,
Action Item for Action Period

- Develop/adapt a driver diagram

  - Thank you for trusting me with your work and allowing me to specifically respond with guidance

What’s Your Theory?

Driver diagram serves as tool for building and testing theories for improvement

by Brandon Bennett and Lloyd Provost
A good aim: 1) Identifies the system to be improved (scope, patient population, drivers selected) 2) Has specific numerical goals and 3) Includes timeframe.
Driver Diagram Components

**Primary Drivers:**
- D1
- D2
- D3
- D4
- D5

**Secondary Drivers:**

**Specific Ideas to Test or Change Concepts:**

Primary Drivers: Major processes, operating rules, or structures that will contribute to moving towards the aim.
Secondary Drivers: Elements or portions of the primary drivers. The secondary drivers are system components necessary in order to impact primary drivers, and thus reach project aim.
Specific changes: Concrete actionable ideas to test.
Change concepts: Broad concepts (e.g., move steps in the process closer together) that are not yet specific enough to be actionable but that will be used to generate specific ideas for change.
**Primary Drivers**

- **AIM**
  - Acute CVA results for patients presenting to Registration (Walk-in) will be reported to the ED Physician within 45 minutes of arrival 85% of the time by 12/31/2017.

**Secondary Drivers**

- **Registration - Early Identification**
- **Nursing - Early Identification**
- **Triage Nurse Instant assessment, initiation of “stroke alert”**
- **Process for Radiology’s response to “Stroke Alert” in ED**
- **Notification process for immediate read of CT scan**
- **Protocol for reporting results of CT scan**

**Change Concepts**

- Develop “buzz words” of possible CVA symptoms
- Script for Registrars to report possible CVA symptoms to the triage nurse

**Krista Hollowell, RN**

Director of Infection Prevention, Risk Management, Patient Safety Officer, HRO Champion

Southern Virginia Regional Medical Center, Emporia VA,
Multiple PDSA Cycle Ramps

Registration - Early Identification

Nursing - Early Identification

Perform Immediate CT

Escalation Process for results of scan

Testing and adaptation
How will we know a change is an improvement?

How do you know a change is an improvement?
The Value of Measuring

“You measure what you value. Conversely, you value what you measure.”  Brent James

“Measurement is the first step that leads to control and eventually to improvement. If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it.”  H. James Harrington

“Without data, you are just another person with an opinion.”  W. Edwards Deming

All measures have limitations, but the limitations do not negate their value for learning.
Why You Are Measuring?

**Improvement**
- Purpose: to bring new knowledge into daily practice
- Tests: Many sequential, observable tests
- Biases: Gather ‘just enough’

**Research**
- Purpose: to discover new knowledge
- Tests: One large ‘blind test’
- Biases: Control for as many biases as possible
- Data: Gather as much as possible

Measurement for Improvement is “for learning, not for judgment”
Measures should operationalize the aim

- Numerical aims provide a reference point to evaluate performance
- Used to guide improvement and test changes

Data should be plotted over time

- Data tells a story
- Annotated is best

Improvement Measures

- Focus on the vital few
- Is for learning not for judgment
- Integrate into team’s daily routine
Numerical aims provide a reference point to evaluate performance.

- Used to guide improvement and test changes.

Measures should operationalize the aim.

- **Aim:** Reduce sepsis mortality rate 20% by January 31, 2018
  - For ED patients, screen and initiate, when positive, sepsis bundle 95% of the time within 1 hour of triage by December 31, 2017

- **Measures:**
  - Sepsis mortality rate
  - Door to identification of positive sepsis screen time
  - Door to initiation time of sepsis protocol
Poll

• Which of these measures align with the aim: Reduce CAUTIs for all acute care patients by 50% by December 31, 2017 (check all that apply)
  a. # of urinary catheter days per month
  b. # of patients admitted with urinary catheters
  c. Removal of all urinary catheters in all surgical patients within 24 hours
  d. Daily review of urinary catheter necessity
  e. Number of PCP with urinary catheters
• Data tells a story
• Annotated is best

• Aim: For ED patients, identify and initiate sepsis bundle 95% of the time within 1 hour of triage by December 31, 2017

• Measure:
  – Door to identification of positive sepsis screen time
  – Door to initiation time of sepsis protocol

<table>
<thead>
<tr>
<th>Pt #</th>
<th>Door Time</th>
<th>Time to Positive Screen</th>
<th>Time to Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>324535</td>
<td>12:50p</td>
<td>1:25p</td>
<td>3:02p</td>
</tr>
<tr>
<td>329534</td>
<td>8:15</td>
<td>8:20</td>
<td>8:55</td>
</tr>
<tr>
<td>328548</td>
<td>3:10</td>
<td>3:50</td>
<td>5:12</td>
</tr>
<tr>
<td>325647</td>
<td>5:55</td>
<td>6:00</td>
<td>6:34</td>
</tr>
</tbody>
</table>
Improving LOS for Patients Admitted from the ED
• Focus on the vital few
• Is for learning not for judgment
• Integrate into teams daily routine

**Aim:** For ED patients, identify and initiate sepsis bundle 95% of the time within 1 hour of triage by December 31, 2017

• **Measure:**
  – Door to identification of positive sepsis screen time
  – Door to initiation time of sepsis protocol
Just because you can measure everything doesn't mean that you should.

— W. Edwards Deming —
Video: “Family of Measures”

Family of Measures

Aim: ↓ falls by 20% within 12 mos.

- http://www.ihi.org/education/IHIOpenSchool/resources/Pages/AudioandVideo/Whiteboard15.aspx
Types of Measures to Evaluate Impact and Progress

**Outcome**
- Measures directly relate to the aim of an initiative.
- How is the system performing? What are the results?

**Process**
- Measures reflect how well processes in the work get done.
- Are the steps of the process performing as planned?

**Balancing**
- What happened to the system as we improved the outcome and processes? (unanticipated consequences)
Process measures matter

“If you can't describe what you are doing as a process, you don't know what you're doing.”

- W. Edwards Deming
Poll

• Check all of the Process Measures
  a. CLABSI rate
  b. Compliance with ventilator bundles
  c. % of time all preventative measures were documented on all high risk patients
  d. Door to balloon time
  e. Mortality rate
  f. Denial rate
Outcome Measure vs. Process Measure

Outcome Measures

a. **CLABSI rate** – How many of our patients had a CLABSI?

b. **Mortality rate** – How many of our patients died?

c. **Denial rate** – How many of our claims were denied?

Process Measures

- Compliance with ventilator bundles - **Were all the bundle elements met?**
- % of time all preventative measures were documented on all high risk patients - **How often did we document all the measures on the high risk patients?**
- **Door to balloon time** - How long did it take to facilitate a patient from door of ED to the insertion of a stent in the cath lab?
An Operational Definition...

...is a description, in quantifiable terms, of what to measure and the steps to follow to measure it consistently.
Operational Definition

• State the measurement process to be used
• Define numerator and denominator
• Category of measure:
  – Outcome
  – Process
  – Balancing
• Is clear and unambiguous
• Identifies criteria

<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Operational Definition</th>
<th>Data Source</th>
<th>Data Collection</th>
<th>Baseline</th>
<th>Aim</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Schedule</td>
<td>• Period</td>
<td>• Short term</td>
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<td></td>
<td></td>
<td></td>
<td>• Method</td>
<td>• Value</td>
<td>• Long term</td>
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</tbody>
</table>

- Measurement Strategy Worksheet

- Measure Name
- Operational Definition
- Data Source
- Data Collection
- Baseline
- Aim
  - Short term
  - Long term
<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Operational Definition</th>
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<tbody>
<tr>
<td>Be specific</td>
<td>Statement of the measurement process used</td>
</tr>
<tr>
<td>Use verbiage that is recognizable</td>
<td>State numerator and denominator</td>
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<tr>
<td></td>
<td>What’s included? What’s excluded?</td>
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<tr>
<td>Data Source</td>
<td>Data Collection</td>
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<tr>
<td></td>
<td>• Schedule</td>
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<td>• Method</td>
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<tr>
<td>Where do you get the data</td>
<td>How often to be collected, reported</td>
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<tr>
<td>Note department, name of report and when available</td>
<td>How is it analyzed? Percentage, rate, # of events, days between,</td>
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# Measurement Strategy Worksheet

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Aim</th>
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<tr>
<td>• Period</td>
<td>• Short term</td>
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<tr>
<td>• Value</td>
<td>• Long term</td>
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<thead>
<tr>
<th>Date collected</th>
<th>What is your numerical aim</th>
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<tbody>
<tr>
<td>Actual value</td>
<td>By when</td>
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<tr>
<td>Assure the values align with operational definition</td>
<td>Include a short/long term goal if helpful</td>
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<table>
<thead>
<tr>
<th>Measure Name (be specific)</th>
<th>Operational Definition numerator, denominator, inclusions and any exclusions</th>
<th>Data Source</th>
<th>Data Collection • Schedule • Method</th>
<th>Baseline • Period • Value</th>
<th>Aim • Short term • Long term</th>
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Action Items for Action Period

• IHI Open School:
  – QI 102 Lesson 3 Choosing Measures
  – QI 103 Lesson 1 How to Define Measures and Collect Data

• Video:
  – Driver Diagrams

• QI Project:
  – Define measures for your project

• If you would like feedback send to kduncan@ihi.org
Project Summary Template

- **Project:** Utilize learning from the Fellowship to improve your current work.
- **Template:** Designed to assist you in presenting your work to leadership and will be utilized to document learnings throughout the Fellowship.
- **Project Summary due date:** October 15th
Bring It Home

Mallory Bender, Program Manager, HRET
THANK YOU!

Next Call March 29, 11 a.m. CT

Empower Teams to Engage in Improvement