Model for Improvement

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This presenter has nothing to disclose.
Establishing the Team’s Aims

- Improvement relies on intention to improve
  - Senior leaders set & align aim with strategic goals
  - Middle management understand – and can translate- the project work to the strategic goals
  - Agreement on aim is critical
- Aim should be unambiguous...clear, specific, numerical, measurable
  - Strong message in stretch goal
- Avoid aim “drift”

Do Not Negotiate the Ambition of the Aim

- Negotiate time to get to the aim
- Think about using half-lives
- Remind folks that we will get there through a program of testing and spread
- Keep the ‘hard red goal line’ on every graph
- Consider relative (50% improvement) versus absolute goal (2% infection rate)
### Aims Statements - Outcomes, Process, Relative or Absolute?

#### Surgical
- Achieve 100% compliance with appropriate selection and timing of prophylactic antibiotic administration

#### Diabetes - Chronic Disease
- Reduce diabetic patient admissions by 75 percent within 11 months

#### Heart Failure - Outpatient
- Patients with HF recognize deterioration and call the office within 10 months.

### Aim Statements - Outcomes, Process, Relative or Absolute?

#### Culture
- At least 70 percent of staff surveyed report a positive climate within 1 year
Exercise

• Work alone or together in a small group
• Choose an improvement effort / topic of common interest & relevance to the group
• Develop a strong, clear aim statement to guide improvement work on this topic
• Discuss how you would set the goal in this aim statement

Measurement Guidelines

• The key measures should clarify the aim and make it tangible
• Keep it simple: Be careful about overdoing process measures
• Use a balanced set of measures: process, outcome and balancing measures
Seek Usefulness Not Perfection

Measurement Clarify the Aims

Example

- **Aim**: Medications are reconciled at transfer for 99% of patients within 1 year

- **Measure**: Number of patients with un-reconciled medications per 100 admissions

- **Formula**: The total number of charts with un-reconciled medications found in a sample of patient records, divided by the total number of patient records reviewed. Multiply the result by 100
Measurement Clarify the Aims

Example

- **Aim:** Patients on a high risk medication experience a related ADE at the rate of .001% (.999 success)

- **Measure:** Percent of patients receiving a specific high-risk medication with a related ADE

- **Formula:** Total number patients identified as having experienced an ADE related to a specific high-risk drug or class from a sample of patient records, divided by the total number of records in the sample. Multiply the result by 100 to express as a percentage.

Exercise

- Select measures for your aim
- Think about the ‘formula’
- Is this data currently collected?
Change Concepts

A Change Concept Is...

A general idea or theory - grounded in science, experience, or logic - that can stimulate specific ideas for changes that will lead to improvement.

Change concepts can be derived from:

• Evidence; scientific results
• Critical thinking or observation of current system
• Creative thinking
• Hunches
• Mental leaps...extrapolating from other situations
Selecting Changes

- Copy: use the literature, experience of others, hunches and theories: “This is what they did at Dr. Grays. I don’t know if it will work here but let’s see what we can learn from it.”
- Avoid low impact changes, “Let’s put up a poster.”; “Let’s have an education session.”; “Let’s send out reminders.”

Selecting Concepts

- Avoid technical slow-downs: “We will build a computer program to do this…”
- Be strategic: set priorities based on the aim, known problems, and feasibility, “Let’s see if we can get the multi-disciplinary team together for one round.”
Change Concepts for System Redesign

- Do tasks in parallel (rescuing deteriorating patients: call system, availability of juniors…)
- Minimize handoffs (Hospital At Night)
- Synchronize to a common point in time (the cut)
- Use pull systems (discharge appointments)
- Move steps closer together (central line insertion cart)

Now You Practice... Selecting Change Concepts and Planning a Test

- Continue, in small groups, with the same aim and measures.
- Select one of the generic change concepts that is relevant to your improvement effort or identify an “original” concept or theory for change that you want to test.
Testing Changes

PDSA Cycle for Learning & Improvement

**Act**
- What modifications are to be made?
- Next cycle?

**Plan**
- Objective
- Questions & predictions (What will happen and why?)
- Plan to carry out the cycle (Who, what, where, when?)

**Study**
- Complete analysis of the data
  - Compare data to predictions
  - Summarize what was learned

**Do**
- Carry out the plan
- Document problems and unexpected observations
- Begin analysis of the data
About Predictions…

- Most often unstated but powerful influence.
- It is your theory behind the changes you choose and tests that you run.
- Without a theory, change are just independent elements that don’t add up.
- Allows you learn and delve deeper: bundle example.

Why Test?

- Increase belief that the change will result in improvement in your environment.
- Predict how much improvement can be expected from the change.
- Learn how to adapt the change to conditions in the local environment.
- Minimize resistance upon implementation.
To be Considered a Real Test

- Test was planned, including a plan for collecting data.
- Plan was carried out and data was collected.
- Time was set aside to analyze data and study the results.
- Action was based on what was learned.

Think About Size

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<th>Current Situation</th>
<th>Resistant</th>
<th>Indifferent</th>
<th>Ready</th>
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<tbody>
<tr>
<td>Low confidence that current change idea will lead to improvement</td>
<td>Cost of failure large</td>
<td>Very Small Scale Test</td>
<td>Very Small Scale Test</td>
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<td></td>
<td>Cost of failure small</td>
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<tr>
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Take a moment to reflect on your own work. What will you incorporate from this session into your plans?