The Model for Improvement and PDSA

DHCF Nursing Facility Quality Improvement Collaborative
March 2019

Selena Bolotin, LICSW
So Many Choices… Where to Begin?

- Model For Improvement (MFI) and Plan-Do-Study-Act (PDSA)
- Baldrige
- ISO Quality Management Systems
- Lean
- Reliability Science
- Human Factors
- Situation-Background-Assessment-Recommendation (SBAR)
- Six Sigma
Three Fundamental Questions for Improvement

• What are we trying to accomplish?

• How will we know that a change is an improvement?

• What changes can we make that will result in an 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?
What Are We Trying to Accomplish?

Developing an Aim

• State the aim clearly
• Use numerical goals
• State the time frame and site of the work

Example: “By the end of 2019, our NH will decrease the percentage of LS residents with facility acquired pressure ulcers by 25% through the application of the SKIN bundle.”
How Will We Know That a Change Is an Improvement?

Measurement Basics

• Just enough!
• Qualitative vs. quantitative
• Should not take more time nor effort than the improvements or system
• Monthly measures should clarify your aim statement and make it realistic
Measurement Basics (cont’d)

- Integrate measurement into the daily routine
- Plot measures monthly
- Use a balanced set of five to seven measures to assure that the system is improved
Example: Annotated Run Chart

Goal: 100.0  
Median: 0.0

Annotations:

a  Inserviced all staff on interview technique
b  designated "interview specialists"
c  expanded "interview specialist" to cover all units and weekends
d  prompted voiding added as option in standing orders for admission
e  turnover in designated interview specialists
What Change Can We Make that Will Result in Improvement?

Change Ideas

• Everything goes!
• Think outside the box!
• Borrow from other disciplines, organizations, topics.
• Proven change packages (e.g., Vanderbilt, INTERACT, IHI’s Campaigns, literature, etc.)
Accelerating Improvement:
PDSA Cycles Paired with the Model For Improvement
The PDSA Cycle

Four Steps: Plan, Do, Study, Act

Also known as:

- Shewhart Cycle
- Deming Cycle
- Learning and Improvement Cycle
PDSA Cycle for Learning Improvement

**Act**
- Adopt, Adapt, or Abandon?
- What changes are to be made?
- Next cycle?

**Plan**
- Objective
- Questions and predictions (Why)
- Who, What, When, Where

**Study**
- Complete the analysis of the data and compare to predictions
  - Summarize learning

**Do**
- Carry out the plan
- Document problems, unexpected observations
- Begin analysis
Testing on a Small Scale

• Pick the most likely helpers
• Use existing knowledge from co-workers
• Incorporate redundancy in the test
  – Side-by-side with the existing care system
  – Try the change two different ways
• “Cycle of 1” - Conduct the test in one wing, with one person, with one subject, etc.
• Develop a plan to simulate the change in some way
Decrease the Time Frame for a PDSA Test Cycle

- Years
- Quarters
- Months
- Weeks
- Days
- Hours
- Minutes

Drop next down two levels to plan test cycle!
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?

Model for Improvement

Act

Plan

Study

Do
Repeated Use of the PDSA Cycle

Proposals, Theories, Ideas

Changes That Result in Improvement

Learning from Data
How will we know that a change is an improvement?
What change can we make that will result in improvement?
What are we trying to accomplish?
Aligning all the Pieces to Reach the Goal

Change Concepts, Theories, Ideas
Do you always need to test? It depends.....

<table>
<thead>
<tr>
<th>Current Situation</th>
<th>Resistant</th>
<th>Indifferent</th>
<th>Ready</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Confidence</strong></td>
<td><strong>Large</strong></td>
<td><strong>Very, very</strong></td>
<td><strong>Very, very</strong></td>
</tr>
<tr>
<td>That change idea will lead to</td>
<td><strong>Cost of failure</strong></td>
<td><strong>Small Test</strong></td>
<td><strong>Small Test</strong></td>
</tr>
<tr>
<td>improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Small</strong></td>
<td><strong>Cost of failure</strong></td>
<td><strong>Very Small Test</strong></td>
<td><strong>Small Test</strong></td>
</tr>
<tr>
<td><strong>Cost of failure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High Confidence</strong></td>
<td><strong>Large</strong></td>
<td><strong>Very Small Test</strong></td>
<td><strong>Small Test</strong></td>
</tr>
<tr>
<td>That change idea will lead to</td>
<td><strong>Cost of failure</strong></td>
<td><strong>Small Test</strong></td>
<td><strong>Large Test</strong></td>
</tr>
<tr>
<td>improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Small</strong></td>
<td><strong>Cost of failure</strong></td>
<td><strong>Small Test</strong></td>
<td><strong>Implement</strong></td>
</tr>
<tr>
<td><strong>Cost of failure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Games for Teaching Quality Improvement to Staff

Airplane game
Tabletop football game
Tennis ball game
Nut-and-bolt game
Worksheets

- Project planning
- PDSA planning
- Run charts
- Others
References


References (cont.)


Questions and Answers

Prepared with assistance from Lloyd Provost, Associates in Process Improvement, and the Institute for Healthcare Improvement