Plan-Do-Study-Act: A Tool for Testing

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June 2, 2021
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Welcome! So Glad You Joined us Today!

Objectives

• Model for Improvement & SMART goal review

• Discuss the importance of testing changes

• Use the Plan-Do-Study-Act (PDSA) cycle

• Summarize the three learning session information
Three Fundamental Questions from the Model for Improvement

**Goal Statement**
- What are we trying to accomplish?

**Measure**
- How will we know that a change is an improvement?

**Change**
- What changes can we make that will result in improvement?
Setting the Stage: Developing SMART Goals

**Specific**

**Measurable**

**Attainable**

**Relevant**

**Time-bound**
The Benefits of Testing the Changes

- Increase your belief that the change will result in improvement
- Document how much improvement can be expected from the change
- Learn how to adapt the change to conditions in the local environment
- Evaluate costs and side-effects of the change
- Minimize resistance upon implementation
The PDSA Cycle for Learning and Improvement

- **Act**
  - What changes are to be made?
  - Next Cycle?

- **Plan**
  - Objective
  - Predictions
  - Plan to carry out the cycle (who, what, where, when)
  - Plan for data collection

- **Study**
  - Analyze data
  - Compare results to predictions
  - Summarize what was learned

- **Do**
  - Carry out the plan
  - Document observations
  - Record data
Implement pressure ulcer prevention protocols as best practice

Goal:
Reduce the number of residents developing in-house, acquired pressure ulcers by 20% in 3 months

The PDSA Cycle

Cycle 1: Develop skin care protocols to be used
Cycle 2: Establish protocol for reporting & documentation
Cycle 3: Train/educate pilot group staff
Cycle 4: Pilot for 1 month
Cycle 5: Implement protocol for all residents

In-house Acquired PU Rate Reduced

Goal:
Reduce the number of residents developing in-house, acquired pressure ulcers by 20% in 3 months
Keys to Successful Cycles to Test Changes

- Plan multiple cycles for testing a change
  (Think a couple of cycles ahead)
- Scale down size of test
  (# of residents, sites)
- Do not try to get consensus or ownership at this time
- Collect useful data during each test
- Test over a wide range of conditions
Keys to Successful Data Collection During PDSA Cycles

Collect useful, not perfect data. The purpose is learning, not evaluation.

Use a pencil and paper until the information system is ready.

Use sampling as part of the plan to collect the data.

Use qualitative data rather than wait for quantitative.

Record what went wrong during the data collection.
Educate Pilot Team

Unit Wide Implementation

Implement Facility-Wide

Begin Pilot

Number of Residents with Nosocomial Pressure Ulcers

November 2010 - April 2011

Number of Residents

Months

Oct-10
Nov-10
Dec-10
Jan-11
Feb-11
Mar-11
Apr-11

10
9
8
7
6
4
2

Use Your Graphs to Tell Your QI Story
Setting the Stage to Begin the Testing

**Step 1:** Develop a Goal
- Identify your goal statement.
- What do you want to improve?
- What change do you want to make?

**Step 2:** Develop 1 Outcome Measure and Process Measure
- Write 1 outcome and process measure.
- How will you know your change is an improvement?

**Step 3:** Develop First Test
- Develop the first test cycle for your plan.
- What change can you make that will result in improvement?
Lovely Nursing Home
Falls Investigation
During the monthly QAPI steering committee meeting at Lovely NH a trend over the last 2 months was observed. QAPI Steering Committee chartered a performance improvement project (PIP) team to further investigate these trends and develop an initial plan to address the issue.
Instructions

• Look at the numbers in the data table for the falls measure.
• After reviewing the data table:
  • What patterns do you see?
  • What questions do you need to ask and who?
  • What actions will the team need to do?
## What Does the Data Show Us?

### Falls Tracking Tool - 1/2020 -- 3/2021

**Facility Name:** Lovely NH  
**Unit B Wing**

<table>
<thead>
<tr>
<th>Date</th>
<th># of Falls this month</th>
<th># of Falls with injury this month</th>
<th>Monthly Census</th>
<th>% of Falls this month</th>
<th>% of Falls w/ injury this month</th>
<th># of falls in or transfers. to the bathroom</th>
<th># of falls out of bed</th>
<th># of falls from chair/WC</th>
<th># of falls while walking</th>
<th># of falls occurring on Week End</th>
<th># of falls occurring on 3-11 or night shift</th>
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What Did The Data Tell You?

**Observation**

- Number of falls increasing past 5 months.
- More than Half of the falls are on the off shifts (eve and nights).
- 20% of the falls on this unit are residents getting OOB.

**Questions**

- What are residents trying to do before falling OOB?
- What are the times of the falls on eve and nights?
- What is staff’s routine at the time of the falls?
B wing has an increasing number of falls per month. Reduce the number of falls on B wing by 12 over the next 6 months. This will be done through implementing our falls prevention protocol as written.

**Outcome Measure and Process Measure**

1. **Outcome**: Percent of residents who experience a fall will decrease.
2. **Process**: 100% of residents will receive a fall risk screening upon admission.

**1st cycle**: Revisit and revise fall prevention protocol.
Successful Change Requires A Plan

- Identify where implementation will take place
- Engage management structures to make the change permanent
- Change must be “turnover proof”
In Summary...

- We reviewed the components of a SMART goal and the Model for Improvement questions to develop a QI plan.

- Discussed using the Plan-Do-Study-Act (PDSA) cycle tool to test changes.
Thank you for your continued efforts to keep us safe.
For More Information

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This material was prepared by the IPRO QIN-QIO, a collaboration of Healthcentric Advisors, Qlarant and IPRO, serving as the Medicare Quality Innovation Network-Quality Improvement Organization for the New England states, NY, NJ, OH, DE, MD, and the District of Columbia, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents do not necessarily reflect CMS policy. 12SOW-IPRO-DE-TA-A5-21-352