

Quality Improvement Basics

The Model for Improvement

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Objectives



After completing this module, participants will be able to

- Explain the three sequenced steps in the Model for Improvement
- Discuss the key components of the Plan-Do-Study-Act (PDSA) steps in testing changes
- Describe the benefits and importance of the testing phase
- Use the Model for Improvement and PDSA template to plan and test changes

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The Model for Improvement



- Quality management model
- Three sequenced steps:
 1. Setting aims
 2. Establishing measures
 3. Testing changes



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The Model for Improvement cont.



- What are we trying to accomplish?
- How will we know that change is an improvement?
- What change can we make that will result in an improvement?

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Example Answers to Model for Improvement Questions



1. What are we trying to accomplish (the aim)?

To protect staff and nursing home residents from COVID-19. The aim is to increase the number of staff that are up-to-date on their COVID vaccines from 5% in March 2023 to 23% in June 2023

2. How will we know that change is an improvement?

Measure: Staff that are up-to-date on their COVID vaccines, as reported in NHSN and publicly reported on Nursing Home Compare. Up-to-date is defined as the staff member receiving the primary series and an updated bivalent booster

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The Model for Improvement, cont



3. What change can we make that will result in an improvement?

- Define the processes currently in place (e.g., process map, flowchart)
- Identify opportunities for improvement that exist
 - Points where the following occur: breakdowns, delays, forgotten tasks, workarounds, duplication, unnecessary steps or variation
- Decide what to change
 - Identify better ways to do things that address the root causes of the problem;
 - Review the best available evidence for what works (literature, studies, experts, guidelines); and
 - Learn from internal experts and from what has worked at other organizations

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Health Equity



- As you strive for health equity and decide what changes will result in an improvement, ask:
 - How do we include and amplify those most impacted by this issue?
 - Who is driving this process of change and who is sidelined?
 - How are our efforts impacting change in just and accountable ways?

(Adapted from the model for equity, improvement, and implementation (MFEII))

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SMARTIE Goal Formula



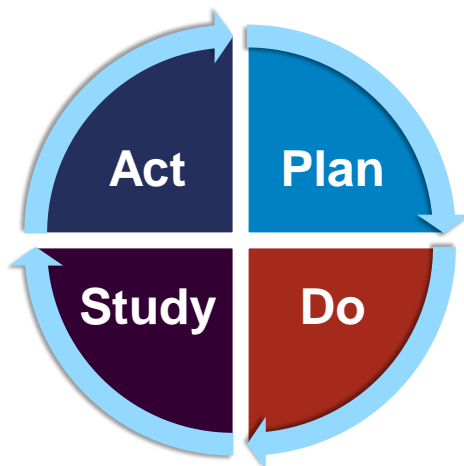
Specific	What exactly do you want to achieve?
Measurable	How will you know you have achieved it? What is the measure you will use, what is the current data for that measure, how do you want it to change?
Attainable	Is it possible to achieve? Based on best practice, average or benchmark? Too low (not challenging)? Too high (unreasonable)?
Relevant	Addresses an important business problem, aligned with strategic plans
Time-Bound	Includes a target date for achieving the goal
Inclusive	Who is impacted and involved?
Equitable	How will it address inequities?

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The Model for Improvement – PDSA



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Plan



- What change are you testing with the PDSA cycle(s)?
- What do you predict will happen and why?
- Who will be involved in this PDSA? (e.g., one staff member or patient, one shift?)
- When and where will the change be tested?
- How long will the change take to implement?
- What resources will they need?
- What data need to be collected?



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Do

- Carry out the test, typically on a small scale.
- Document observations, including any problems and unexpected findings.
- Collect data you identified as needed during the “plan” stage.



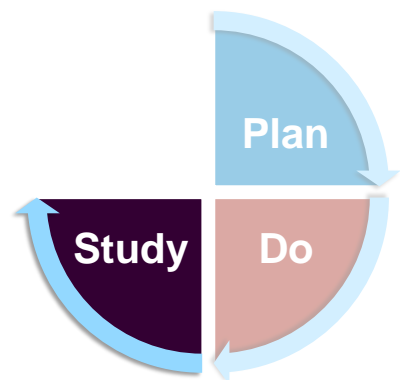
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Study

- Study and analyze the data.
- Determine if the change resulted in the expected outcome.
- Were there implementation lessons?
- Summarize what was learned. Look for: unintended consequences, surprises, successes, failures.



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To Be Considered a PDSA Cycle



- The test or observation was **planned** (including a plan for collecting data and a prediction about results)
- The plan was attempted (**do** the plan)
- Time was set aside to analyze the data and **study** the results
- **Action** was rationally based on what was learned

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Act



Based on what was learned from the test:

- Adapt – modify the changes and repeat PDSA cycle.
- Adopt – consider expanding the changes in your organization to additional staff, patients, departments or units.
- Abandon – change your approach and repeat PDSA cycle.



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Why test on a small scale?



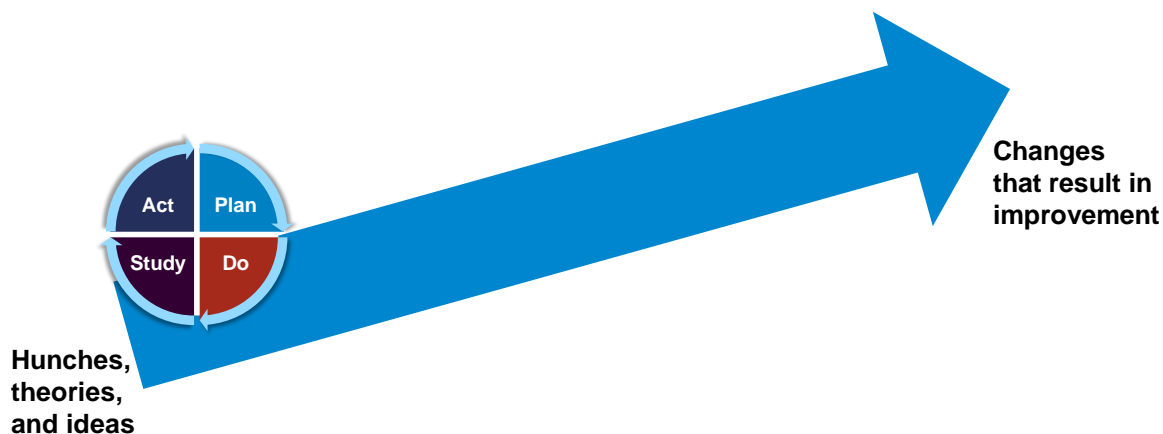
- Opportunity for learning from “failures” without impacting performance
- Document how much improvement can be expected from the change
- Learn how to adapt the change to conditions in the local environment
- Evaluate costs and side-effects of the change
- Minimize resistance upon implementation

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Repeated Use of PDSA Cycle



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PDSA Examples



- <https://www.ahrq.gov/health-literacy/improve/precautions/tool2b.html>
- <https://www.health.state.mn.us/diseases/cardiovascular/documents/examplepdsa.pdf>
- [https://www.healthy.arkansas.gov/images/uploads/pdf/PDSA_Directions_Worksheet_\(Example\).pdf](https://www.healthy.arkansas.gov/images/uploads/pdf/PDSA_Directions_Worksheet_(Example).pdf)

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Model for Improvement PDSA Template




bit.ly/QI-Basics-PDSA-Worksheet

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In Summary



- The Model for Improvement involves three sequenced steps: setting aims, establishing measures, and testing changes
- The power of PDSA is that it can be first used on a small scale, to identify and address barriers and problems early on, and to sequentially build buy-in and commitment and produce data that demonstrates results.
 - You can learn from failures without a large impact
 - You can learn how to adapt the change to conditions in the local environment.
- You can combine aspects of quality improvement models that work well for your organization.

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