

# Step 5 INCREMENTALLY TEST SOLUTIONS, FOCUSING ON WORK/ROLE CHANGES

## TESTING CHANGES

### Institute for Healthcare Improvement

Once a team has set an aim, established its membership, and developed measures to determine whether a change leads to an improvement, the next step is to test a change in the real work setting. The Plan-Do-Study-Act (PDSA) cycle is shorthand for testing a change — by planning it, trying it, observing the results, and acting on what is learned. This is the scientific method, used for action-oriented learning.

#### REASONS TO TEST CHANGES

- To increase your belief that the change will result in improvement.
- To decide which of several proposed changes will lead to the desired improvement.
- To evaluate how much improvement can be expected from the change.
- To decide whether the proposed change will work in the actual environment of interest.
- To decide which combinations of changes will have the desired effects on the important measures of quality.
- To evaluate costs, social impact, and side effects from a proposed change.
- To minimize resistance upon implementation.

#### STEPS IN THE PDSA CYCLE

##### Step 1: Plan

Plan the test or observation, including a plan for collecting data.

- State the objective of the test.
- Make predictions about what will happen and why.
- Develop a plan to test the change. (Who? What? When? Where? What data need to be collected?)

##### Step 2: Do

Try out the test on a small scale.

- Carry out the test.
- Document problems and unexpected observations.
- Begin analysis of the data.

##### Step 3: Study

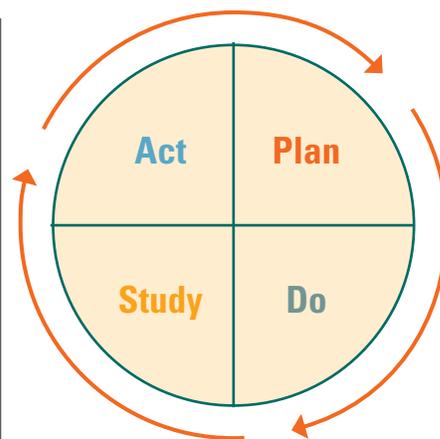
Set aside time to analyze the data and study the results.

- Complete the analysis of the data.
- Compare the data to your predictions.
- Summarize and reflect on what was learned.

##### Step 4: Act

Refine the change, based on what was learned from the test.

- Determine what modifications should be made.
- Prepare a plan for the next test.



#### EXAMPLE

##### Example of a Test of Change (Plan-Do-Study-Act Cycle)

Depending on their aim, teams choose promising changes and use Plan-Do-Study-Act (PDSA) cycles to test a change quickly on a small scale, see how it works, and refine the change as necessary before implementing it on a broader scale. The following example shows how a team started with a small-scale test.

##### Diabetes: Planned visits for blood sugar management.

**Plan:** Ask one patient if he or she would like more information on how to manage his or her blood sugar.

**Do:** Dr. J. asked his first patient with diabetes on Tuesday.

**Study:** Patient was interested; Dr. J. was pleased at the positive response.

**Act:** Dr. J. will continue with the next five patients and set up a planned visit for those who say yes.

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