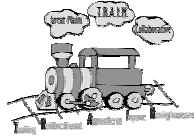



PDSA Cycle for Improvement



Materials from the Great Plains T.R.A.I.N. Collaborative
Teaching Resident-Directed Approaches to Improve Nursing Home Care


This material was prepared by CIMRO of Nebraska, the Medicare Quality Improvement Organization for Nebraska, under contract with the Centers for Medicare & Medicaid Services (CMS), a federal agency of the U.S. Department of Health and Human Services. The contents do not necessarily reflect CMS policy. 6SOW-NE-NH-0632



Materials Needed for this presentation:

- None

Goals for this presentation:

- To understand how the PDSA cycle for improvement can be incorporated in quality improvement efforts in your nursing home

Key Elements of Making Significant Change

- Will to do what it takes to change to a new system
- Ideas on which to base the design of the new system
- Execution of ideas

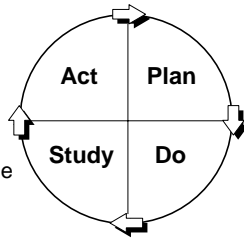
Fundamental Questions for Improvement

- 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?

The PDSA Cycle Four Steps: Plan, Do, Study, Act

Also known as:

- Shewhart Cycle
- Deming Cycle
- Learning and Improvement Cycle

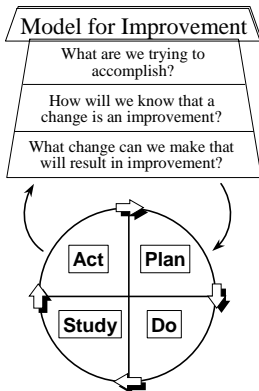


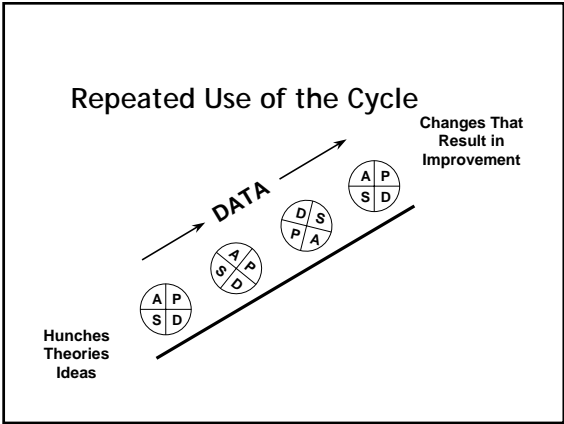
Improvement Requires Learning

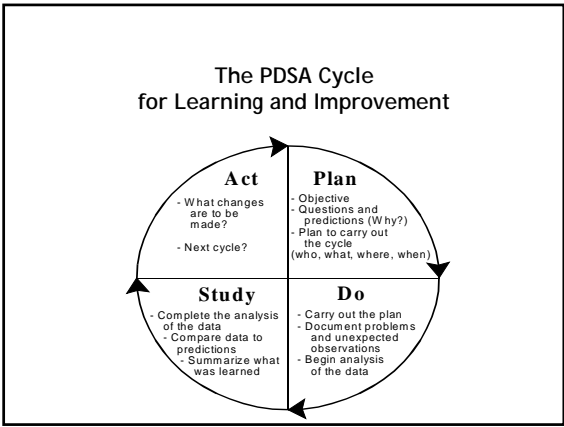
- PDSA Cycle is a model for learning and improvement
- To improve a process, we must first learn about the process
- Learning requires a theory
- Theory is prediction
- To learn, we compare our prediction against our observation

Use the PDSA Cycle for:

- Helping to answer the first two questions
- Developing a change
- Testing a change
- Implementing a change







- ### Successful Cycles to Test Changes
- Plan multiple cycles for a test of a change
 - Think a couple of cycles ahead
 - Initially, scale down size of test (# of patients, location)
 - Test with volunteers
 - Do not try to get buy-in or consensus for test cycles
 - Be innovative to make test feasible
 - Collect useful data during each test
 - In latter cycles, test over a wide range of conditions

Rapid Cycle Improvement Step 1

What are we trying to Accomplish?

- Define the vision: Implementing successful change packages/evidence- based medicine
- The purpose of the test of change should be clear and specific

Step 1 - Example

- What are we trying to accomplish?

Reducing Pressure Ulcers -
Decreasing the frequency that residents
develop pressure ulcers

What's Our Data?

- On admission, a Braden Scale was done that showed the residents being high-risk for pressure ulcers
- 2 of 4 charts had no dietary documentation
- 2 of 4 residents had pressure-reducing mattresses on their beds after the pressure ulcers were discovered

What's Our Data?

- Nursing Assistants documented red areas existed on one resident's coccyx 1 wk before discovery of the pressure ulcer
- None of the pressure ulcers were discovered until they were Stage II
- 3 of 4 residents were incontinent of bowel and bladder, the 4th resident of bladder only
- 2 of 4 residents are walk with assist only

Rapid Cycle Improvement Step 2

- How will we know the test will result in a change for improvement?
 - What is the predicted result?
 - Establish the measurement (2 Types)
 - ✓ Variable data (e.g., weight, blood pressure, time, Braden Scale, etc)
 - ✓ Attribute data (count data) (e.g., patient turned or not, intake recorded or not, orders followed or not)

Step 2 - Example

- How will we know the test will result in a change for improvement?
 - High-risk residents will not develop pressure ulcers

**Rapid Cycle Improvement
Step 3**

- What test of change can we run to learn about the process?
 - Design the Test of Change
 - Keep the scale of the test small
 - What test can we run by next Tuesday?
 - Plan to run test multiple times

Step 3 - Example

- What test of change can we run to learn about the process?

Turning schedules will be implemented
and documented for residents with
mobility limitations

**Rapid Cycle Improvement
Step 4**

- Plan the Test of Change
 - Who will run the test?
 - What will the test consist of?
 - Where will the test occur?
 - When will the test occur?
 - Why are we doing this test?

**Rapid Cycle Improvement
Step 5**

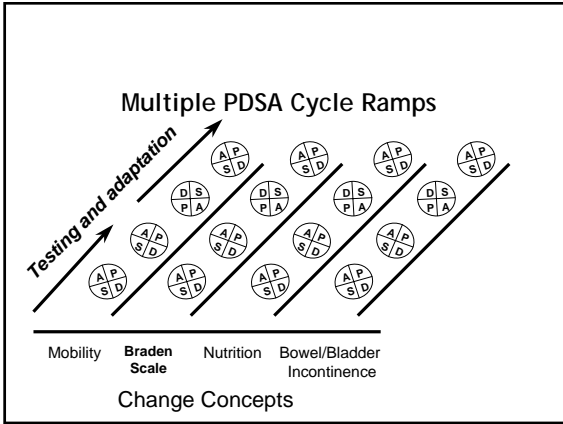
- Do the Test of Change
- Run the test in accordance with the plan

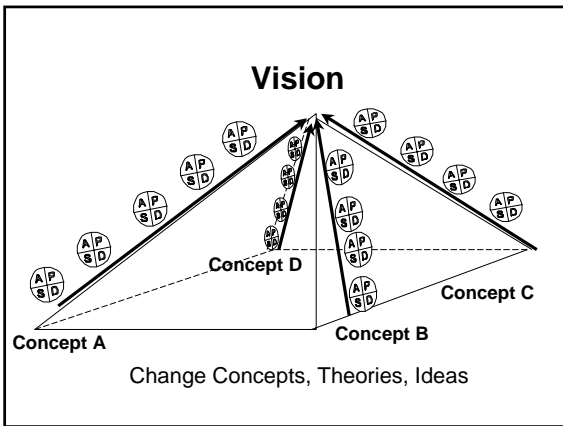
**Rapid Cycle Improvement
Step 6**

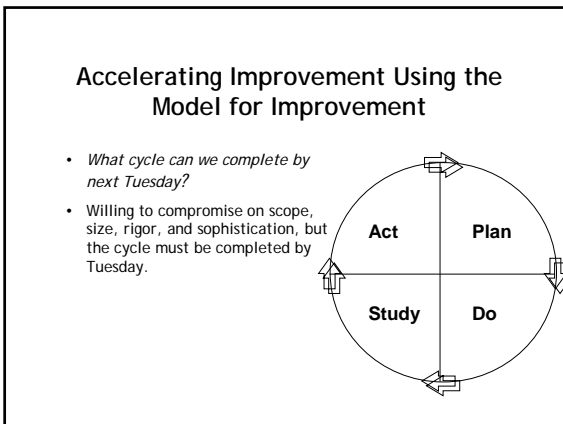
- Study the test Results
 - Compare the test results to your prediction
 - What have you learned?

**Rapid Cycle Improvement
Step 7**

- Act on your learning !!
 - Is more testing required?
 - Can a small-scale change be implemented?







Where to go next?

- The Circle of Wisdom
 - A learning and communication tool

Questions?

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