Accelerating Improvement
Session Objectives

• Review small cycle tests of change
• Learn about larger scale implementation efforts
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

Aim

Measures

Ideas

Testing

Act

Plan

Study

Do
Why Test?  The PDSA Cycle

Act
- What changes are to be made?
- Next cycle?

Plan
- Objective
- Questions and predictions (why)
- Plan to carry out the cycle (who, what, where, when)
- Plan for data collection

Study
- Complete the analysis of the data
- Compare data to predictions
- Summarize what was learned

Do
- Carry out the plan
- Document problems and unexpected observations
- Begin analysis of the data
Think about your PDSA cycles for a few minutes

• What factors lead to learning and improvement?
• What hinders learning and improvement?
Why test? Why test on a small scale?

• Opportunity for “failures” with low risk

• Get idea of 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
What are the options as a result of “Study”?

- Was the change tested as planned?
- Was the change successful in achieving the goal?

• **Options for next PDSA cycle**
  - Abandon it
  - Modify it and test again
  - Test under different conditions (e.g. new M.D.)
  - Increase in scope
    - e.g. more patients, more physicians
Repeated Use of the PDSA Cycle

- **Hunches**
- **Theories**
- **Ideas**

**Changes That Result in Improvement**

**Implementation of Change**

**Very Small Scale Test**

**Follow-up Tests**

**Wide-Scale Tests of Change**

**DATA**
Testing vs. implementation

– Testing
  • Trying a change on small scale to see if and how it works.
  • The change is temporary.
  • Many failures are expected.

– Implementation
  • Making a change a part of day-to-day operations.
  • The change is intended to be permanent.
  • There is high confidence that the change will lead to improvement.
PDSA cycles for Implementation

– More staff
– More patients
– Involves increased expectation; more “adoption” and less “adaptation”
– Testing includes processes to maintain change
  • training, documentation, policy, equipment, supplies, compensation

– Therefore
  • Expect more resistance
  • Generally takes more time than testing
Multiple Cycles to Test and Implement Components of the Care Model

Component: Decision Support

From Chinatown, Asthma BTS, 2001

Cycle 1: Gather sample flow sheets, try V.1 with two patients
Cycle 2: Try V.2 by two providers for a few days
Cycle 3: Two week trial of V.3
Cycle 4: Trial of training a provider
Cycle 5: Implement use of V.4, train all providers
Cycle 6. Peer review of use of flow sheet in documentation

Will a flow sheet be useful for patients?
Accelerating Improvement: How?

- By understanding the difference between testing and *implementation*
- Do more testing
- Do testing in parallel
- Using measurement for learning
- Use PDSA cycles for learning
- Team collaboration
- Using prediction
Accelerating Improvement: How?

- By understanding the difference between testing and *implementation*
- **Do more testing**
- **Do testing in parallel**
- **Use measurement for learning**
- **Use PDSA cycles for learning**
- Use prediction
- Team collaboration
Do more testing….how?

• **Move from ideas to action quickly.**
  – (e.g. Are you in disagreement? Then test and see the results!)

• **Those who develop the PDSA do it first:**
  • Test the change with improvement team members.

• **Decrease the scope of the test**
  – Test of oneness: one patient, one doctor

• **Decrease the time frame**
  – Test of oneness: one day, one hour
  – “What design would enable us to do this test tomorrow or, even better, right now?”
Sustaining the change

• Training
• Documentation
• Policy
• Equipment/supplies
• Small measures at intervals: are we still doing this?