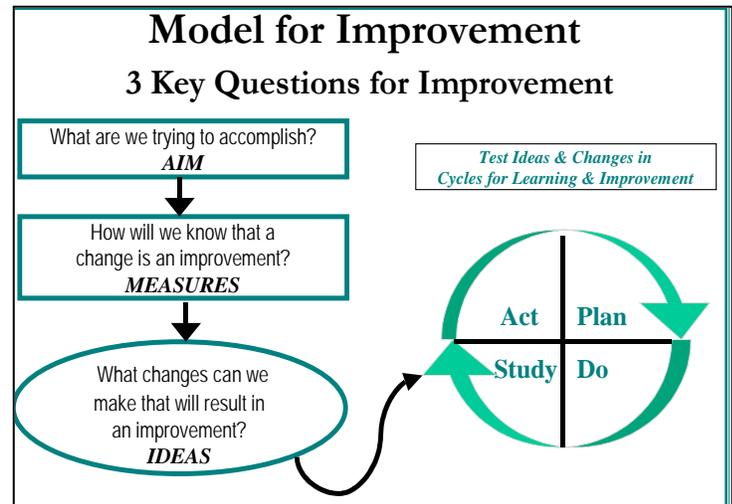# Model for Improvement[1] Key Points

Why A Model? What Purpose?
- Provide organizing structure to guide thinking
- Ensure discipline and thoughtfulness
- Support improvement principles
- Facilitate improvement
- Foster common language

Improvement Principles
- Listen to patients and families
- Tap knowledge of the system by involving staff
- Understand processes and interactions in system
- Use disciplined method in successive cycles to test changes
- Test on small scale; move rapidly to improve
- Measure to learn and to understand variation

Model for Improvement

3 Key Questions for Improvement

What are we trying to accomplish?
AIM

How will we know that a change is an improvement?
MEASURES

What changes can we make that will result in an improvement?
IDEAS

Test Ideas & Changes in Cycles for Learning & Improvement

Act | Plan
Study | Do

Question 1: What are we trying to accomplish?
AIM: A specific, measurable, actionable, realistic, and time-bounded (SMART) statement of expected results of an improvement process.

A strong clear aim gives necessary direction to improvement efforts, and is characterized as:
- Intentional, deliberate, planned
- Unambiguous, specific, concrete
- Measurable with a numeric goal, preferably one that provides a "stretch" to motivate significant improvement
- Aligned with other organizational goals or strategic initiatives
- Agreed upon and supported by those involved in the improvement and leaders

Make your aim actionable and useful. Include:
- A general description of what you hope to accomplish
- Specific patient population who will be the focus
- Some guidance for carrying out the activities to achieve aim

Question 2: How will we know that a change is an improvement?

[1] Langley, Nolan, Norman, and Lloyd P. Provost. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance*. New York: Jossey-Bass Inc., 1996.

MEASURES: Measures are indicators of change. To answer this key question ("How will we know that a change is an improvement"), several measures are usually required. These measures also can be used to monitor a system's performance over time. In Plan-Do-Study-Act (PDSA) cycles, measurement used immediately after an idea or change has been tested helps determine its effect.

In improvement, key measures and measurement should:
- Clarify and be directly linked to goals
- Seek usefulness over perfection
- Be integrated into daily work whenever possible
- Be graphically and visibly displayed
- For PDSA cycles, be simple and feasible enough to accomplish in close time proximity to tests of change

Question 3: What changes can we make that will result in an improvement?
IDEAS: Ideas for change or **change concepts** to be tested in a PDSA cycle can be derived from:
- Evidence or results of research/science
- Critical thinking or observation of the current system
- Creative thinking
- Theories, questions, hunches
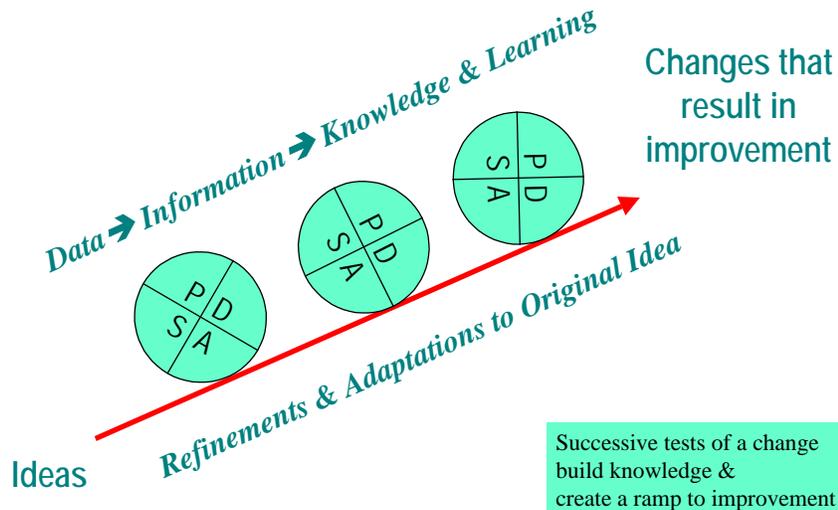- Extrapolations from other situations

When selecting ideas to test, consider the following:
- Direct link to the aim and goals
- Likely impact of the change (avoid low-impact changes)
- Potential for learning
- Feasibility
- Logical sequencing
- Series of tests that will build on one another
- Scale of the test (3 patients, NOT 30)
- Shortness of the cycle (1 week, NOT 1 month)

Tips to make the most of PDSA cycles and tests of change:
- Think a couple of cycles ahead
- Plan multiple cycles to test and adapt change
- Scale down size of test (# of patients, location)….A "cycle of 1" is often appropriate
- Do more cycles, at a smaller scale and faster pace instead of fewer, bigger, slower
- Test with volunteers first
- Don't seek buy-in or consensus for the test
- Be innovative and flexible to make test feasible
- Collect useful (and only just enough) data during each test
- Test over a wide range of conditions
- Learn from failures as well as successes
- Communicate what you've learned
- Engage leadership support

Repeated PDSA Cycles To Test A Change

Data → Information → Knowledge & Learning

Changes that result in improvement

P D S A **P D S A** **P D S A**

Refinements & Adaptations to Original Idea

Ideas

Successive tests of a change build knowledge & create a ramp to improvement

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Test Ideas & Changes in Cycles for Learning & Improvement

●What refinements or modifications need to be made
●What's the next cycle?

●Objective
●Questions& predictions (What will happen & why)
●Plan to carry out the cycle (Who, what, where, when)

Act **Plan**

Study **Do**
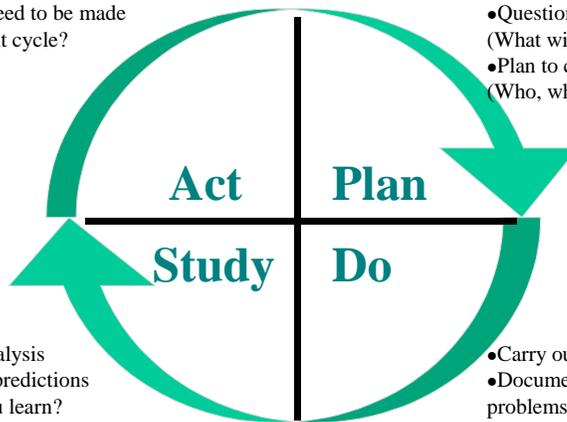
●Complete analysis
●Compare to predictions
●What did you learn?
●What conclusions can you draw from this test?

●Carry out the plan
●Document experience, problems, surprises
●Collect data as planned; begin analysis