



Common barriers to improvement efforts

- Time
- Money
- Lack of Resources
- We've always done it this way
- Too much resistance to change
- Nobody wants to work on this
- Too many other priorities

An illustration showing several stylized human figures standing in a line, looking towards a large, dark, rectangular wall or barrier that is blocking their path.

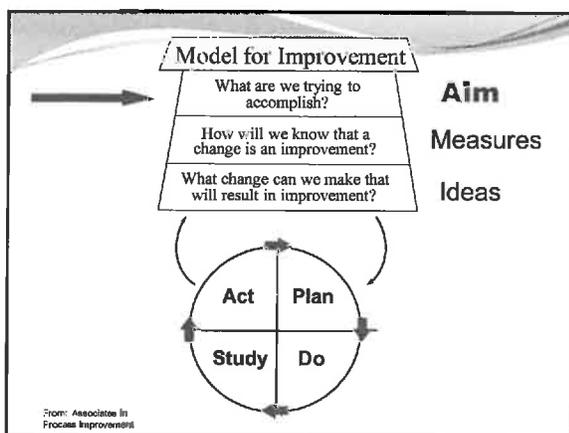
Comparison of QA & QI

	QA	QI
Motivation	Measuring compliance with standards	Continuously improving processes to meet standards
Means	Inspection	Prevention, monitor over time
Attitude	Required, defensive	Chosen, proactive
Focus	Outliers or "bad apples", individuals	Processes, systems, majority
Players	Selected departments	Organization wide, benchmarking
Disciplines	Within profession	Multidisciplinary approach
Scope	Medical profession focused	Patient care focused
Responsibility	Few	All

Key Elements of Systems 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 the changes to the system

A quote in a small box: "Insecurity: doing the same thing over and over again and expecting different results Einstein."



Create a Strong Aim Statement

A written statement of the accomplishments expected from improvement effort

The aim statement should be easy to remember

- Include:
 - What will we improve?
 - For whom?
 - How much?
 - Specify number goals for outcomes
 - By when?

Creating an AIM Statement

- Requirements
 - Describe the SYSTEM to be improved (location)
 - Must be TIME specific (by when?)
 - Must be MEASURABLE (how much?)
 - Must define a SPECIFIC POPULATION (who exactly?)
- DO-
 - Avoid aim drift (solving world hunger!)
 - Be flexible and prepared to refocus

Aim Statement Examples

- Reduce emergency room visits for asthma patients by 30% within 15 months
- Increase the %age of flu vaccinations given to asthmatic patients at University Pediatrics to 85% by the end of flu season

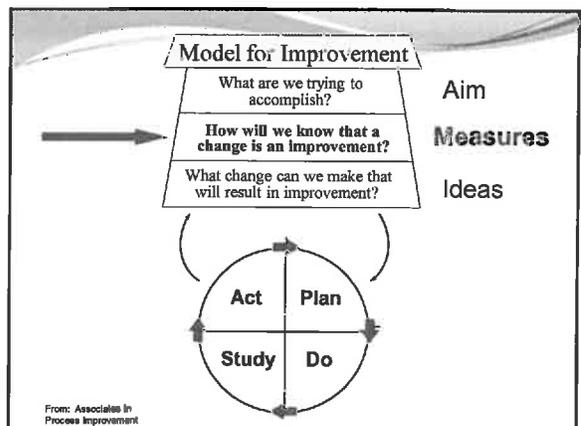
Focus Your Aim Statement

“Some is not a number, soon is not a time!”
Don Berwick, Institute for Healthcare Improvement (IHI)

“Here is what I think we should do.
 I think we should save 100,000 lives.

And I think we should do that by
 June 14, 2006—18 months from today.

Here’s the number: 100,000.
Here’s the time: June 14, 2006—9 a.m.”



“You Can’t Manage What You Don’t Measure.”

Measurement

- Measures are used to guide improvement and test changes
- Integrate measurement into daily routine; use patient population database
- Plot data for the measures over time and annotate graph with changes

Measures- 3 Types

1. **Outcome Measures**- Voice of the Customer. How is the system performing? What is the result?
2. **Process Measures**- Voice of the workings of the system. Are the parts/steps in the system performing as planned?
3. **Balancing Measures**- Looking at a system from different directions. What happened to the system as we improved the outcomes/process (e.g. unanticipated consequences, other factors influencing outcome)?

Types of Measures

- Outcomes
- Process
- Balancing

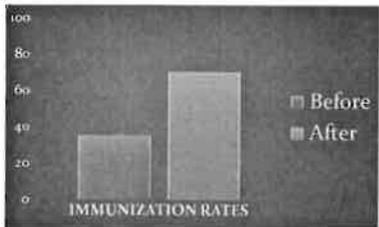


Project Measure

A balanced set of measures helps to assure the **system** is improved

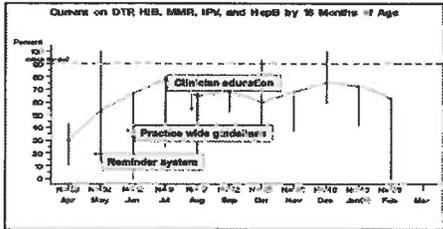
- Related to the aim's measureable goals
- Easy to collect
- Show improvement quickly and include outcome
- Can display them graphically over time
 - Run charts

Usual Display of Measures



Category	Rate (%)
Before	~40
After	~70

Measures: Annotated Run Chart

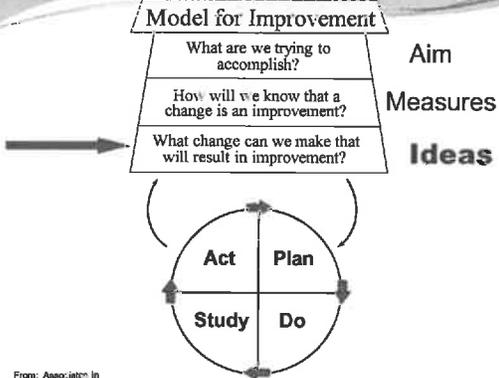


Model for Improvement

What are we trying to accomplish? **Aim**

How will we know that a change is an improvement? **Measures**

What change can we make that will result in improvement? **Ideas**



From: Association for Process Improvement

Change Concepts:

- Use **change concepts**, models (Chronic Care Model), literature, shared experiences to develop specific changes
- Test: good ideas, ready for use or ready for adaptation to your environment

Change Concept Generic Examples

- Conduct trainings
- Focus on processes
- Work with suppliers/input
- Reduce setup and prep time
- Develop contingency/backup plans for special situations
- Use reminders
- Reduce # components/simplify

Vague, creative

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Specific, actionable

Example of A Change Concept:

- Reduce backlog
- Make continuity of care a system property
- Identify patients' PCP
- Develop phone script for schedulers
- Pilot phone script for one day

Model for Improvement

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?

From: Associates In Process Improvement

The PDSA Cycle for Learning and Improvement

<p>Act</p> <ul style="list-style-type: none"> • What changes are to be made? • Next cycle? 	<p>Plan</p> <ul style="list-style-type: none"> • Objectives • Questions and predictions (why) • Plan to carry out the cycle (who, what, where, when) • Plan for data collection
<p>Study</p> <ul style="list-style-type: none"> • Complete the analysis of the data • Compare data to predictions • Summarize what was learned 	<p>Do</p> <ul style="list-style-type: none"> • Carry out the plan • Document problems and unexpected observations • Begin analysis of the data

Repeated Use of the PDSA Cycle

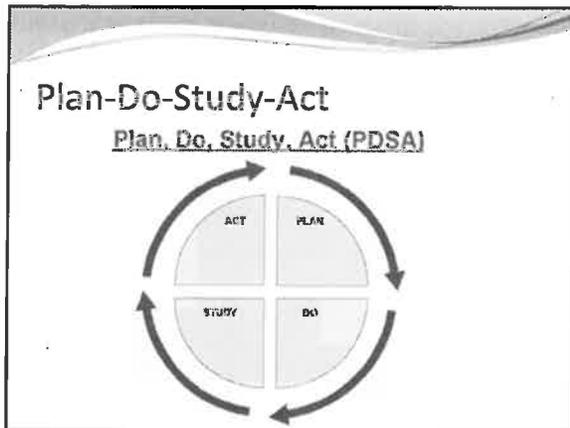
Multiple cycles

Changes that Result in Improvement

Proposals, Theories, Ideas

Learning from Data, Tests

Changes that Result in Improvement



PDSA- Plan

- Create an AIM statement
- Form your hypothesis
- Predict what will happen when the test is carried out
- Develop measures determine if hypothesis is correct

PDSA- Do

- Collect data
- Chart and display the data
- Document problems, unexpected observations
- Describe what happened when you ran the test
- "Just enough" data

PDSA- Study

- Determine
- Describe
- Success vs. Failure
 - Success
 - Action
 - Modification
 - Failure

PDSA- Act

- Act on what you have learned
- Describe modifications to the plan from what you learned

Success is going from failure to failure without losing your enthusiasm.

Abraham Lincoln



Clarification of Terms

- **Task:** Something that needs to get done, i.e. find a sample management plan or print a list of patients. (not to PDSA)
- **Test:** *Trying* a change on a small scale to see if the change results in improvement. (to PDSA)

A test of change involves complete Plan-Do-Study-Act cycles, including *a question and a prediction.*

To PDSA or Not to...

<u>To PDSA:</u>	<u>Not to PDSA:</u>
<ul style="list-style-type: none"> • When testing <i>new</i>: <ul style="list-style-type: none"> • processes • tools • measures 	<ul style="list-style-type: none"> • Gathering data or information (patient lists---unless you want to learn about the data process) • General “planning”, setting goals, objectives or completing tasks

K.I.S.S. --Keep It Short and Simple

- Scale down size of test (# of patients, location)
- Conduct the test over a short time period
- Test with volunteers
- **Do not** try to get buy-in or consensus for the test
- Collect *useful* data during each test

Key Points for PDSA Cycles

- Successful test
 - As you move to implementation, test under as many conditions as possible
 - Test under special situations (e.g., busy days)
 - Factors that could lead to breakdowns (e.g. Different staff or physicians involved)
 - Things naysayers worry about (e.g., it will not work when Dr. King is not here)

Decrease the Time Frame for a PDSA Test Cycle

- Years
- Quarters
- Months
- Weeks
- Days
- Hours
- Minutes

Drop down next “two levels” to plan Test Cycle!

Initially use Smaller Scale Tests: The power of “one”

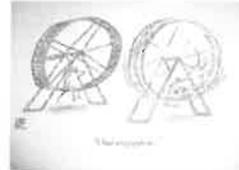
Conduct the initial test with...

- Conduct the test in one facility or office in the organization, or with one customer
- Test the change on a small group of volunteers
- Develop a plan to simulate the change in some way

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Some inefficiencies of PDSAs

- Doing too much in one PDSA, instead of several cycles
- Running PDSA that are not PDSAs:
 - Collecting baseline data
 - Meetings
 - Brainstorming
 - Planning to change



Why Test?

- **Increase** your belief that the change will result in improvement
- **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

References

- *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance.* G. Langley, K. Nolan, T. Nolan, C. Norman, L. Provost. Jossey-Bass Publishers, San Francisco, 1996.
- “Eleven Worthy Aims for Clinical Leadership of Health Systems Reform,” Don Berwick, *JAMA*, September 14, 1994, Vol. 272 #10, p. 797-802

Quality is a never-ending cycle of continuous improvement.



-Deming

Final Thought...

If you don't have time to do it right, when will you have time to do it over?



Thank You!

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PDSA Cycle: (Scope of Testing)

Current Situation		Staff Readiness to Change		
		Resistant	Indifferent	Ready
Low Confidence that change idea will lead to improvement	Cost of failure is large	Very Small Scale Test	Small Scale Test	Small Scale Test
	Cost of failure is small	Small scale Test	Small Scale Test	Medium Scale Test
High Confidence that change idea will lead to improvement	Cost of failure is large	Small Scale Test	Medium Scale Test	Large Scale Test
	Cost of failure is small	Medium Scale Test	Large Scale Test	Implement