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

Comparison of QA & QI

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

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

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.”

Model for Improvement

- From: Association for Healthcare Improvement

Measure

- 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**

![Graph showing immunization rates before and after improvement](Image)

**Measures: Annotated Run Chart**

![Run Chart annotated with data points and analysis](Image)

**Model for Improvement**

- **Aim**
- **Measures**
- **Ideas**

- **Act**
- **Plan**
- **Study**
- **Do**
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**

**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**

<table>
<thead>
<tr>
<th>What are we trying to accomplish?</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will we know that a change is an improvement?</td>
</tr>
<tr>
<td>What change can we make that will result in improvement?</td>
</tr>
</tbody>
</table>

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**The PDSA Cycle for Learning and Improvement**

- **Act**
  - **Plan**
    - Objectives
    - Questions and predictions (why)
    - Plan to carry out the cycle (who, what, how, 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

---

**Repeated Use of the PDSA Cycle**

Multiple cycles

Changes that Result in Improvement

Proposals, Theories, Ideas
Plan-Do-Study-Act

- Plan
- Do
- Study
- Act

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
HELPFUL TIPS

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...

**To PDSA**:
- When testing new:
  - processes
  - tools
  - measures

**Not to PDSA**:
- 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

Some inefficiencies of PDSAs

- Doing too much in one PDSA, instead of several cycles
- Running PDSAs 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


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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