

Plan Do Study Act



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Learning Objectives

- Systems in Healthcare
- Change concepts
- PDSA cycles
 - Conducting a test of change using PDSA
 - Track and share PDSA cycles
- Improvement character tips

Systems

Of all new things implemented in health care
what percentage would you say fail?
Why?

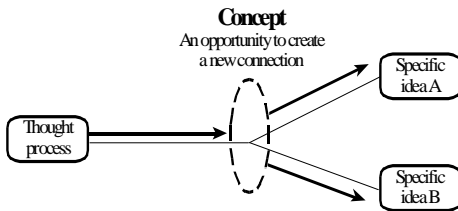
"Inspection at the end of the process is too late and too expensive."

Knowledge for Improvement

- Quality results from studying and changing the system
- Using subject matter knowledge and profound knowledge in creative ways to develop effective changes for improvement
- Change concepts that works

What Changes Can We Make That Will Lead to Improvement?

Change Concept: a general notion or approach to change that has been found to be useful in developing specific ideas for changes that lead to improvement.



Change

While all changes do not lead to improvement, all improvement requires change.

Berwick, Boushon, & Roessner, 2007

Facilitating Change Ideas

- Has a clear advantage over the current system
- Compatible with current system and values
- Easy to try and reverse
- Understanding and adapting the change requires **minimum** complexity
- The change and its impact can be observed in real time
- Fits somewhere in the generic list of change concepts (refer to handout)

*From Everett Rogers "Diffusion of Innovations"

PDSA

P = The test or observation is planned

D = The plan is attempted (one staff and one patient and then expand over time)

S = Time is set aside to analyze the data and study the results

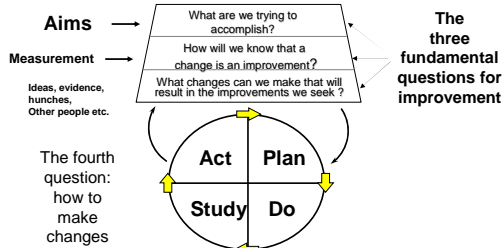
A = Use results to establish next test of change

Rapid cycle means multiple tests a day or week.....not months

Why do PDSA?

- To test change
- Make improvements & define responsibilities
- Create opportunities to share

Model for Improvement



Langley, Nolan et al
1996

How Do We Know That a Change is an Improvement?

- Key measures are required to assess progress towards goals
- Specific measures can be used for learning during PDSA cycles
- Balancing measures are needed to assess that other parts of the system are not being negatively impacted.

Types of Measures

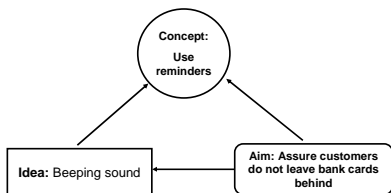
Type of measure	Examples
Outcome measures	<u>Rates:</u> <input type="checkbox"/> Infection <input type="checkbox"/> Failures <input type="checkbox"/> Re-admits <input type="checkbox"/> Mortality
Process measures	% used order set, guideline, etc % treated in required time % receiving correct procedure, medication, etc % Near Misses
Balancing measures	Costs Delays Resources % detected by redundant process Satisfaction

Change Concept

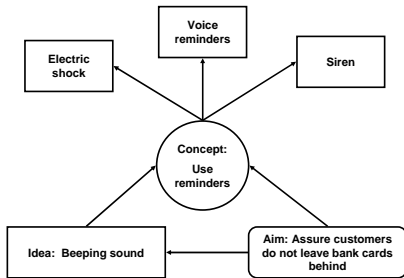
Aim: Assure customers do not leave bank cards behind

Change Concept

Idea: Beeping sound



Change Concept



Based on Edward DeBono's Concept Fan

Use of a PDSA Testing Form

AIM: By October 31, 2008 we will have reduced MRSA rates by 25% of baseline on surgical Unit #1 through reduction of spread by using proper isolation techniques

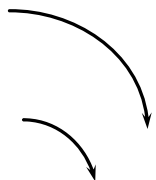
Describe your first (next) test of change (ACT)	Person Responsible	When to be done	Where to be done
Test the new isolation carts and signage on the next admitted patient on Unit #1 within 24 hours of admission	John RN	Sept 9/08	Surgery Unit #1

Plan/Do/Study

List the tasks needed to set up this test of change	Person Responsible	When to be done	Where to be done
1. Understand proper isolation techniques	Mary RN	Today	Here
2. Ensure signage is properly placed	Jane Team Lead	Sept 8	Surg Unit XYZ
3. Ensure Cart is properly stocked as per best practice guidelines	John RN	Sept 8	Surg Unit XYZ
4. Select patient and time then perform the test	Susan Unit Manager	Sept 9 before 2pm	Surg Unit XYZ
5. Hold a testing evaluation huddle with 2 other team members	Susan Unit Manager	Sept 9 at 230 pm	Surg Unit XYZ
6. Complete the "testing" worksheet	John RN	Sept 9 before 3 pm	Conference Rm Med Unit XYZ

Tips for Timing PDSA Cycles

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

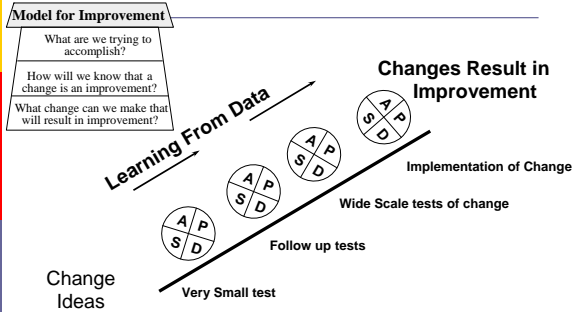


Drop down next "two levels" to plan test cycle!

Rapid Cycle Change

- Initiation of Rapid Cycle tests is dependent on getting the first test of change started
- Do Not try to Perfect the change then implement...consider your work a masterpiece in progress
- Failure is a great Opportunity to plan to do better next time...Rome was not built in a day
- Frequency of Testing determines the speed of the process improvement ie daily testing = improvement in weeks; weekly = improvement in 3-4 months

Testing to Implementing



Exercise

Building Planes and Flying in the Alaska Bush

■ Divide into teams

■ Select a **Flight Engineer**- design and fly plan

■ Select a **Manager**- measure the distance and keep time

■ Select a **Quality Improvement Consultant**- team satisfaction

■ Remaining Team members **Observers**

Tips for PDSA Leaders

□ Organize into natural teams (min 3 persons)

□ Complete an improvement charter

□ Brainstorm list of change ideas for testing

□ Plan multiple cycles for a test of a change

□ Think a couple of cycles ahead

□ Scale down size of test (# of patients, location)

□ Test with volunteers

□ Do not try to get buy-in, consensus, etc.

□ Be innovative to make test feasible

More Tips for PDSA Leaders

□ Collect useful data during each test

□ Test over a wide range of conditions

□ Share generously with each other

□ Borrow shamelessly from each other

□ Use the Improvement Charter in every meeting

□ Send results to Exec Sponsor

□ Have fun/celebrate and profile results

Tips : Aim Statements

- Is the aim specific enough?
- Does the aim statement include recommended elements?
 - What is expected to happen
 - The system to be improved
 - The setting or sub-population of patients
 - Specific numerical goals
 - Guidance for the activities
- Is there a timeframe established?

By October 31, 2008 we will have reduced MRSA rates by 25% of baseline on surgical Unit #1 through reduction of spread by using proper isolation techniques



What is the outcome of using PDSA?

- Increases beliefs that the change will result in improvement
- Documents how much improvement can be expected from the change
- Learn how to adapt the change to conditions in the local environment / context
- Evaluate costs and side-effects of the change
- Minimizes resistance upon full implementation
- Minimizes unexpected / unanticipated impacts with implementation
- Increases buy-in and skill sets at the front line
- Changes the way future improvements will be addressed

It's a great skill to have



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Contact Information

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