Testing your change ideas - PDSA

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Reactive change versus change for improvement

- Reactive change is one required to maintain the system at its current level of performance

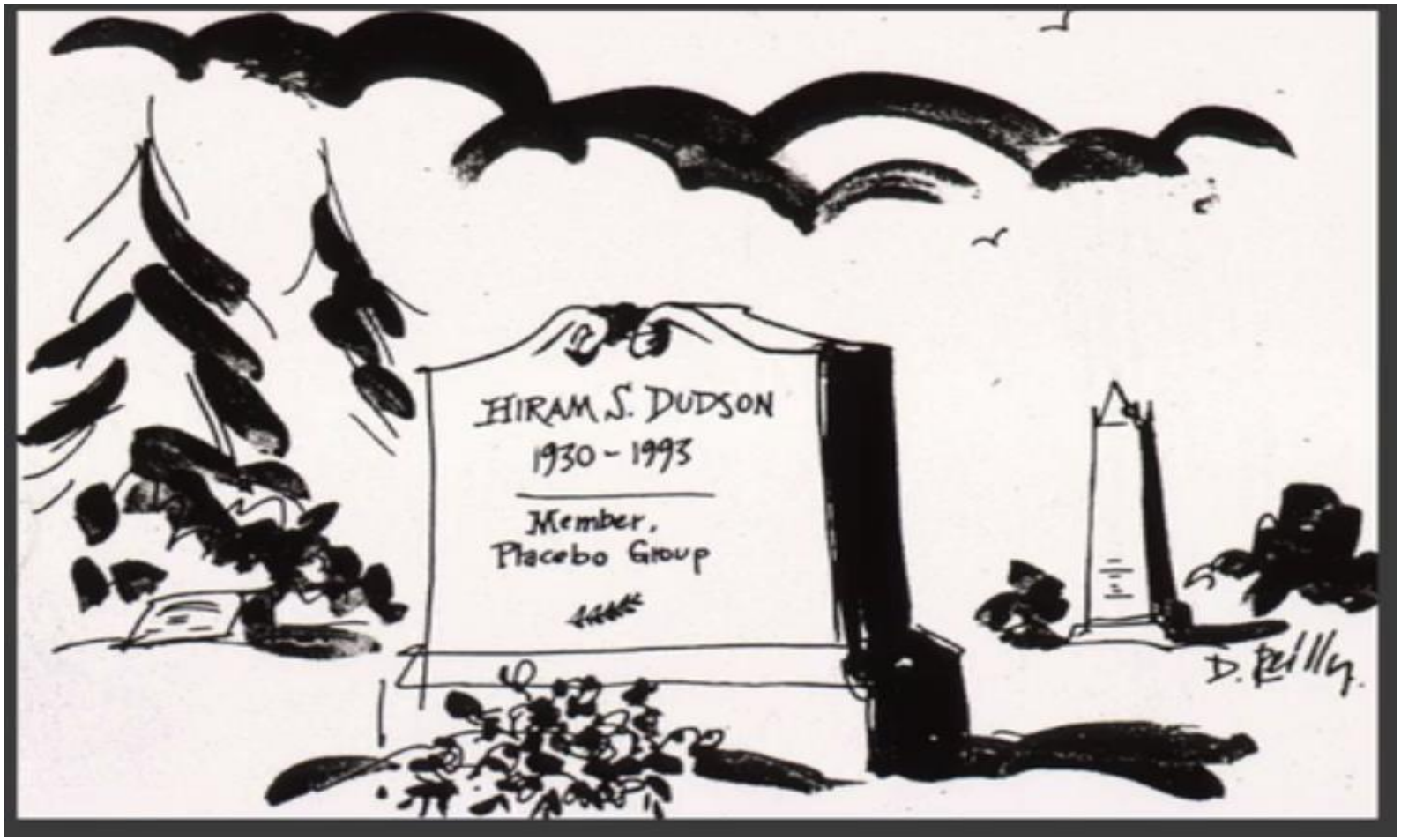
- Improvement – change that will result in an improved level of performance

"Trying harder will not work, changing systems of care will."

Don Berwick
Institute for Healthcare Improvement
Former CMS Administrator

Trial and error
The do-do-do approach

Extensive study
The plan-plan-plan approach



Trial and learning

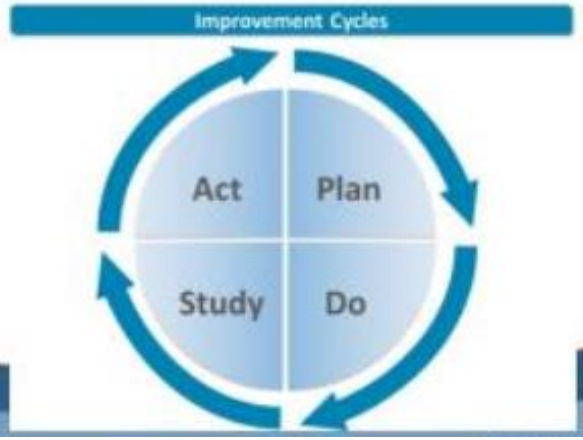
Accelerating Learning and Improvement

What cycle can we complete by next Tuesday?

Willing to compromise on scope, size, rigor, and sophistication, but the cycle must be completed by next Tuesday.

Use of a PDSA cycle for

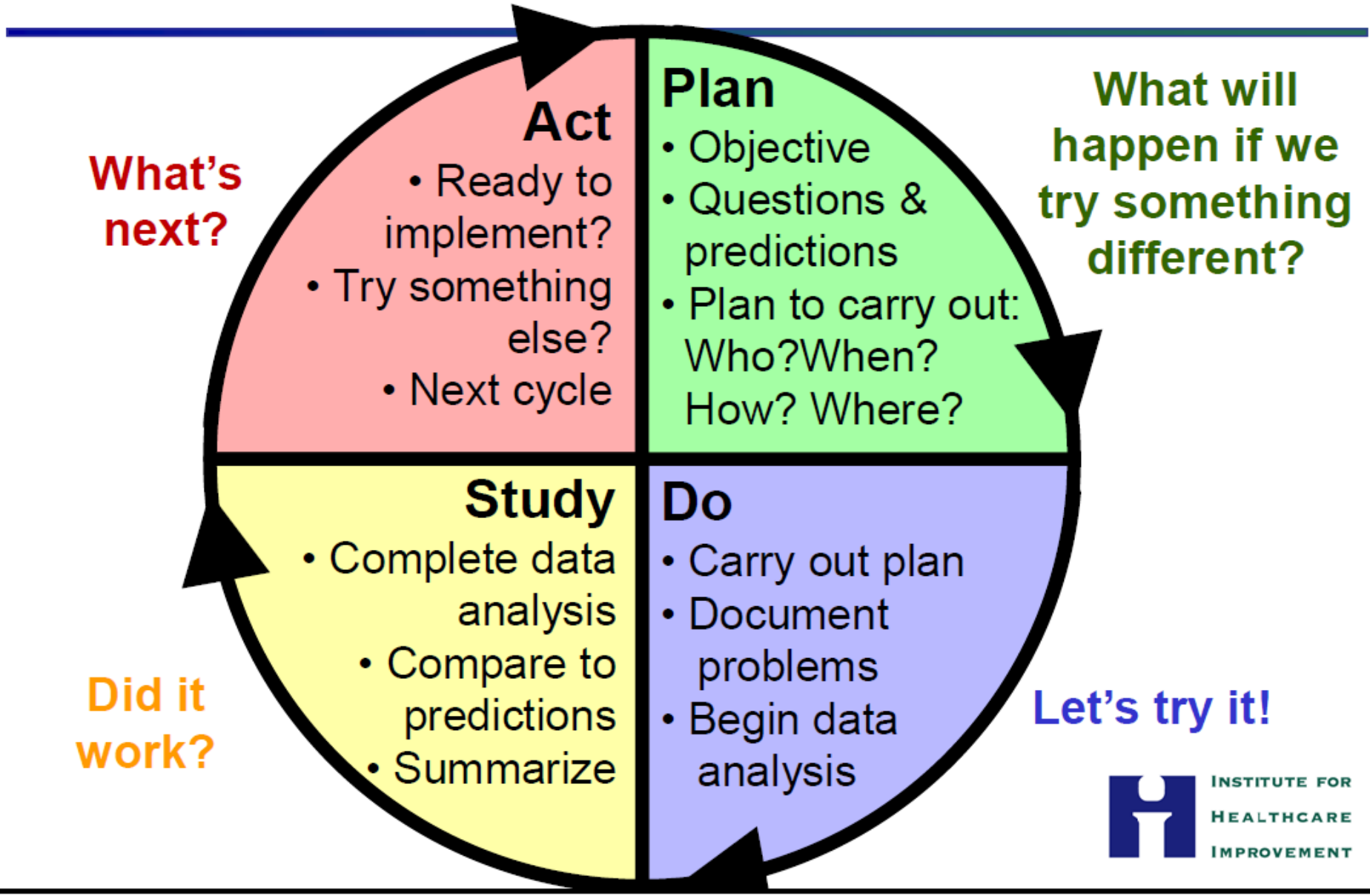
- *Testing* or adapting a change idea
  - May answer a question related to the aim
- Implementing a change
- Spreading the changes to the rest of the system



Why test?

- Force us to think small
- Increases your belief that the change will result in improvement
- Opportunity for learning without impacting performance
- Help teams adapt good ideas to their specific situation

The PDSA Cycle for Learning and Improvement



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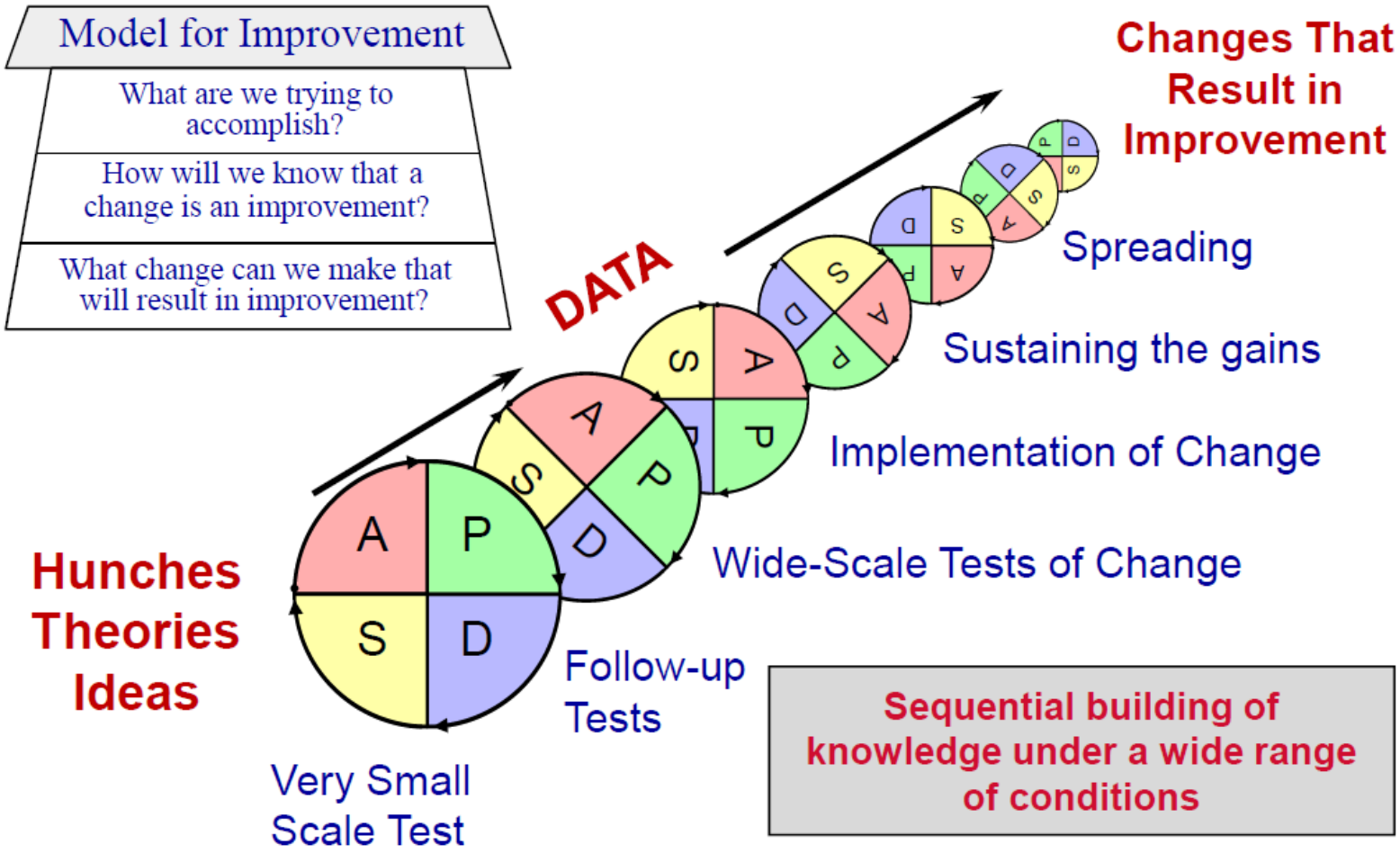
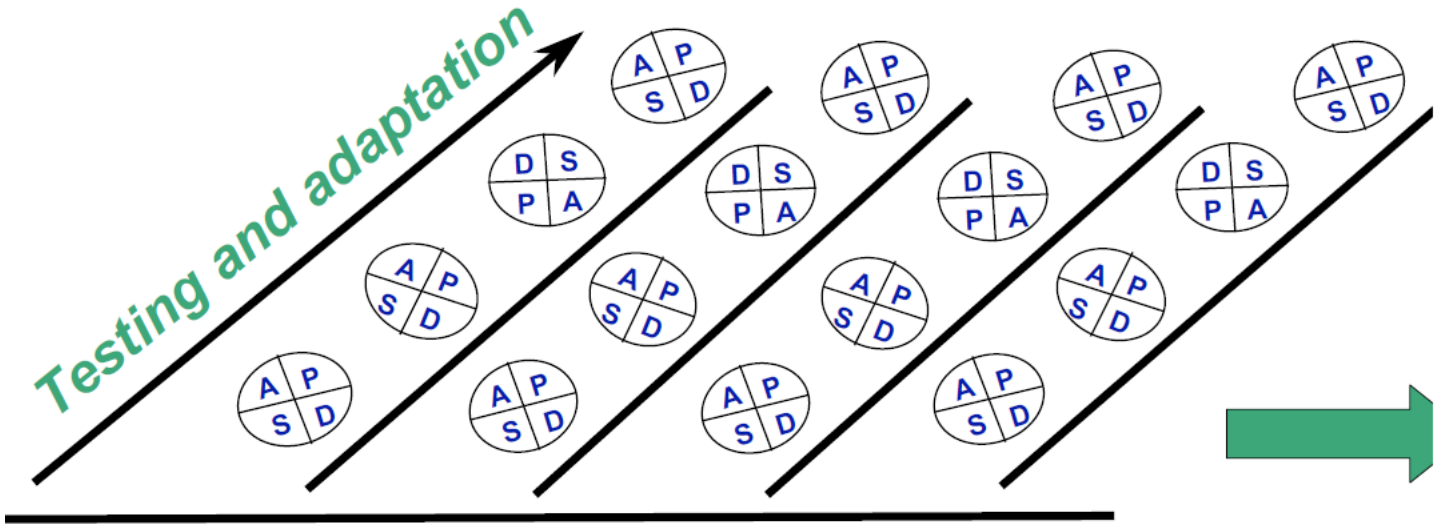
Repeated Use of the PDSA Cycle for Testing



Multiple PDSA Cycle Ramps



Triage | Diagnostic Testing | Fast Track Patients | Demand and Capacity

Change Concepts

Examples of PDSA cycle ramp

- Change idea "To reduce the irritability related to nicotine withdrawal in new admits to IPU by having a timely plan and access to replacement therapies"
- How will we know if this is an effective idea?
  - By seeing if we can reduce the number of those who smoke experiencing a seclusion (related to withdrawal) in the initial 48 hours following admission to IPU
  - Reliably increasing the number of new admissions (smokers) with a plan and offered replacement therapy

Plan this cycle ramp

- PDSA 1: Process for the early identification of smokers prior to or during admission assessment.
- PDSA 2: Process for access to nicotine replacement treatment at assessment areas.
- PDSA 3: Communicate the withdrawal plans.
- PDSA 4: Process for reliably providing early nicotine replacement therapies.
- PDSA 5: Establishing therapies (more than one) that we can safely and reliably provide.

PDSA/Learning Cycle Form

District Health Board: Far Far Away DHB			
Planned Start Date	Nov 27	Planned Finish Date	Nov 30th
PDSA #: 1	**This PDSA Title:**		**Owner:**

Objective for this PDSA Cycle:

To be able to identify those who smoke either prior to admission or early in admission assessment process

This PDSA will be used to: ☐ Collect Data X☐ Develop a Change ☐ Test a Change ☐ Implement a Change

Plan: Fill the sections below as part of planning

Change Idea:

- " To reduce the distress of nicotine withdrawal in new admits to IPU by having a timely plan and access to replacement therapies"

Questions

Can we identify those who would benefit from an early nicotine withdrawal therapy in the initial assessment process?

Prediction: Prediction on Change: A specific individualized plan with early effective management of nicotine withdrawal symptoms will decrease distress that may lead to seclusion events.

Prediction on Question

90% of new admissions can be screened for smoking and nicotine withdrawal status on admission

Data

Review of the last 20 acute admissions for evidence of smoking status and plan for nicotine withdrawal management documented.

Task to be completed for Test	Who	When	Where and How

Do: Carry out the change or test; Collect data and begin analysis.

What problems or unexpected events did you encounter?

No consistent process or place in the notes to find information reliably.

Only nicotine patches offered

Feedback and observations from the participants?

Difficulty in finding information in the record

Study: Complete analysis of data

What do the data show?

15 of the 20 patients did have a smoking status documented. 10 patients had nicotine patches provided.

Was your predication confirmed? If not what did you learn?

Lower than expected documentation of smoking status, this could be related to difficulties in finding the information.

Only 50% of smokers provided with nicotine replacement and only one form of replacement used. Is this due to no availability of other types of nicotine replacement available.

2 smoker not provided nicotine replacement were noted to have brief seclusion events,

Act: Decide the next steps

Following this test, you will:
☐Implement as is (adopt) ☐ dropped (abandon) ☐x Modify (adapt) ☐ Increase the scope (expand)
☐Test under other condition

What is your plan for the next cycle

Create a standardised process and place for documenting smoking status.
Develop a withdrawal plan process

Linking PDSA cycles and test of change

Testing changes is an ongoing process: the completion of each Plan-Do-Study-Act (PDSA) cycle leads directly into the start of the next cycle.

A team learns from the test:

- What worked?
- what didn't work?
- What should be kept, changed, or abandoned?

This new knowledge is used to plan the next test. The team continues linking tests in this way, refining the change until it is ready for broader implementation within the practice.

People are far more willing to test a change when they know that changes can and will be modified as needed. Linking small tests of change helps overcome an organization's natural resistance to change and ensures team buy-in.

Scale of test

Current Situation		Staff Readiness to Make Change: Resistant	Indifferent	Ready
Low Confidence that change idea will lead to Improvement	Cost of failure large	Very Small Scale Test	Very Small Scale Test	Very Small Scale Test
	Cost of failure small	Very Small Scale Test	Very Small Scale Test	Small Scale Test
High Confidence that change idea will lead to Improvement	Cost of failure large	Very Small Scale Test	Small Scale Test	Large Scale Test
	Cost of failure small	Small Scale Test	Large Scale Test	**Implement**

Improvement Guide, pg 146

Tips for working with PDSAs:

- No PDSA is too small
- Plan multiple cycles for a test of change, and think a couple of cycles ahead
- You can achieve rapid results
- PDSA cycles help you learn from your work
- Anyone can use them in any area – improvement is nearly always a team endeavour
- Just do it! – what can we do by next Thursday?
- Keep it simple
- Remember that you will learn as much from things that don't go well as well as those that do go well

Common traps:

People generally want to solve their problems with one change and they try to implement the whole change with one plan. These are common pitfalls to avoid:

- Not reflecting on what you have done in order to learn from it
- Implementing changes without planning
- No testing, only data collection
- Undisciplined PDSAs – no documentation
- Thinking too big – beware cycles longer than 2 weeks.

Breakout

Using the PDSA form:

- Begin planning your test of change
- Identify change idea - what primary driver is it linked to?
- What is your theory for this change?
- How will you capture data to learn about the effectiveness?