Prepared for the Non-Executives of the
East London NHS Foundation Trust

The Role of the Board in Building and Sustaining Quality: Part 2

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Questions Guiding Today's Workshop

Question #1: What is the difference between a quality improving Board, and a Board that is looking for assurance? How do we strike the balance between assurance and improvement?

Question #2: How can we make sure that QI is part of all strategies that the Board signs off? How we make QI our business strategy?

Question #3: How do get everyone to have a basic knowledge of the science of improvement? What is the role of the Board in building capacity and capability for QI.

Question #4: How can the Board be assured that we are moving towards our improvement aims?

Question #5: How do we use all of this data we have to make an impact on our QI efforts? How do analyse the data from a QI perspective and what questions do we ask about the results?

Question #6: How do we scale up all of this local improvement work to something that is meaningful at Trust-level? What are the big dots, and how do we aggregate all the work up to move the big dots?

Now, let's take a closer look at …

…improvement!

All improvement requires two types of knowledge

Subject Matter Knowledge

Subject Matter Knowledge: Knowledge basic to the things we do in life. Professional knowledge. Knowledge of work processes.

SOI Knowledge

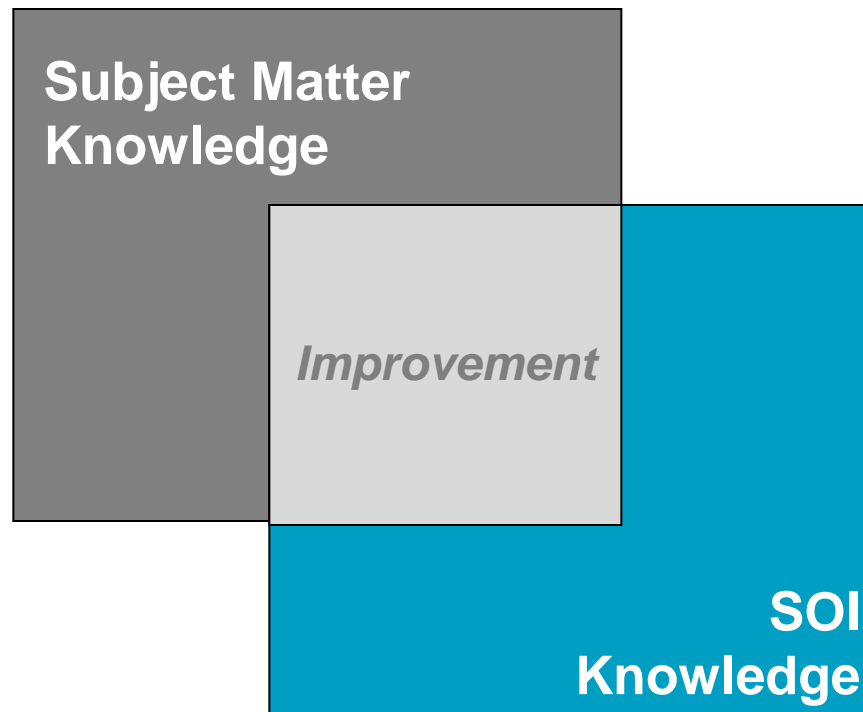**Science of Improvement (SOI) Knowledge:** The interplay of the theories of systems, variation, knowledge, and psychology.

All improvement requires two types of knowledge

Improvement: Learn to combine subject matter knowledge and SOI knowledge in creative ways to develop effective changes for improvement.

Subject Matter Knowledge

Improvement

SOI Knowledge

And, Good Project Selection!

- QI projects should support the ELFT strategy and objectives. For example:
  - Improvements in quality, patient safety, service or outcomes
  - A need to reduce costs and demonstrate value
  - Responding to external expectations and demands

- Should be completed in 9-12 months or less

- Baseline data should exist and potential measures have been identified

- The team should have reasonable control over the factors that drive improvement

- The project has an assigned sponsor

Not Good Candidates for a QI Project

- Implementing a new a procedure, protocol or policy (e.g., implementing a new computer system)

- Fix a transient problem or an emergency

- A one-time or infrequent training or educational workshop (e.g., create a new on-boarding program)

- Any project where you cannot answer the question *"How will you know a change is an improvement?"*

- Huge ("solving world hunger") projects with short timeframes

- Politically charged issues
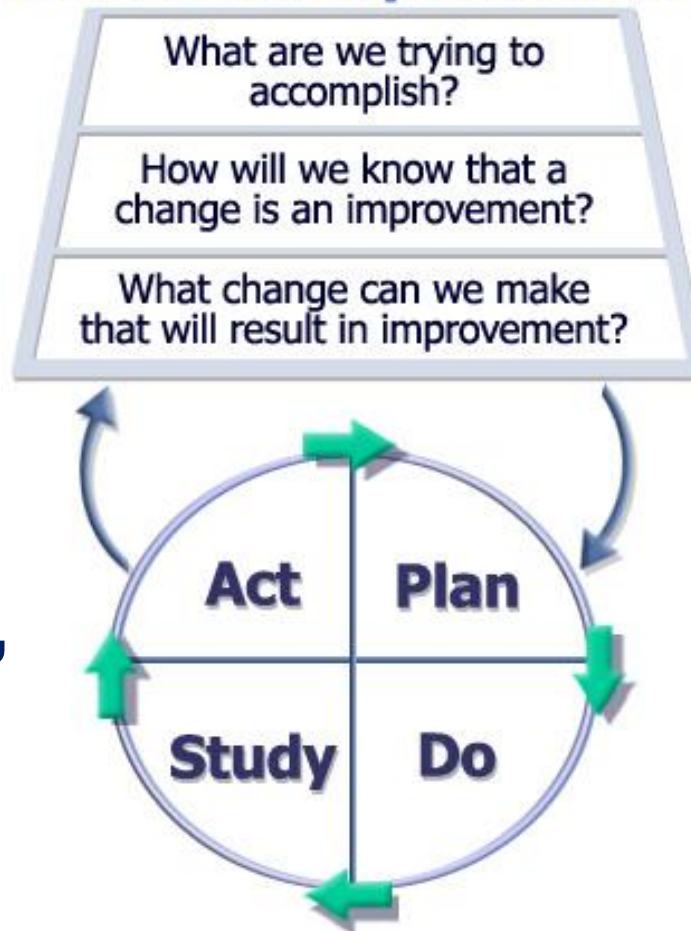
- Improving employee compensation

A Model for Learning and Change

When you combine the 3 questions with the…

PDSA cycle, you get…

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?

Act | Plan

Study | Do

…the Model for Improvement.

Langley, et al, *The Improvement Guide*, 2009

Question 1
Requires an Aim Statement

✓ **The System** (scope & boundaries)

✓ **Numerical *goals*** (How good?)

✓ ***Timeframe*** (By when?)

✓ ***Guidance*** (constraints in the system or other special considerations that might impede progress)

Question 2
Measurement is Central to the Team's Ability to Improve

- The purpose of measurement in QI work is for _learning not judgment!_

- **All measures have limitations, but the limitations do not negate their value for learning.**

- You need a balanced set of measures reported daily, weekly or monthly to determine if the process has improved, stayed the same or become worse.

- **These measures should be linked to the team's Aim.**

- Measures should be used to guide improvement and test changes.

- **Measures should be integrated into the team's daily routine.**

- Data should be plotted over time on annotate graphs.

- **Focus on the Vital Few!**

Question 3
Moving from Change Concepts to Ideas

Vague, strategic, creative

↓

Specific, actionable, results

Improve process to reduce anxiety

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Give patients and families access to information

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Use beepers for family and friends waiting

↓

Make beepers available to families of all surgery patients for one day next week as first test of change
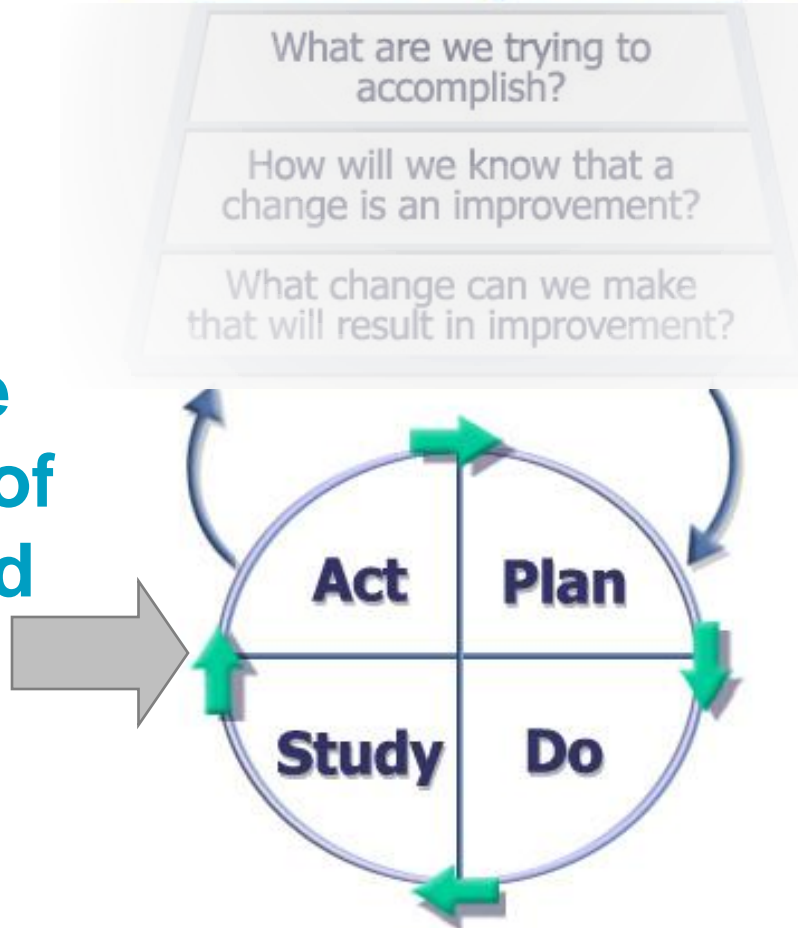
Taking a concept and getting specific. Getting to actionable ideas.
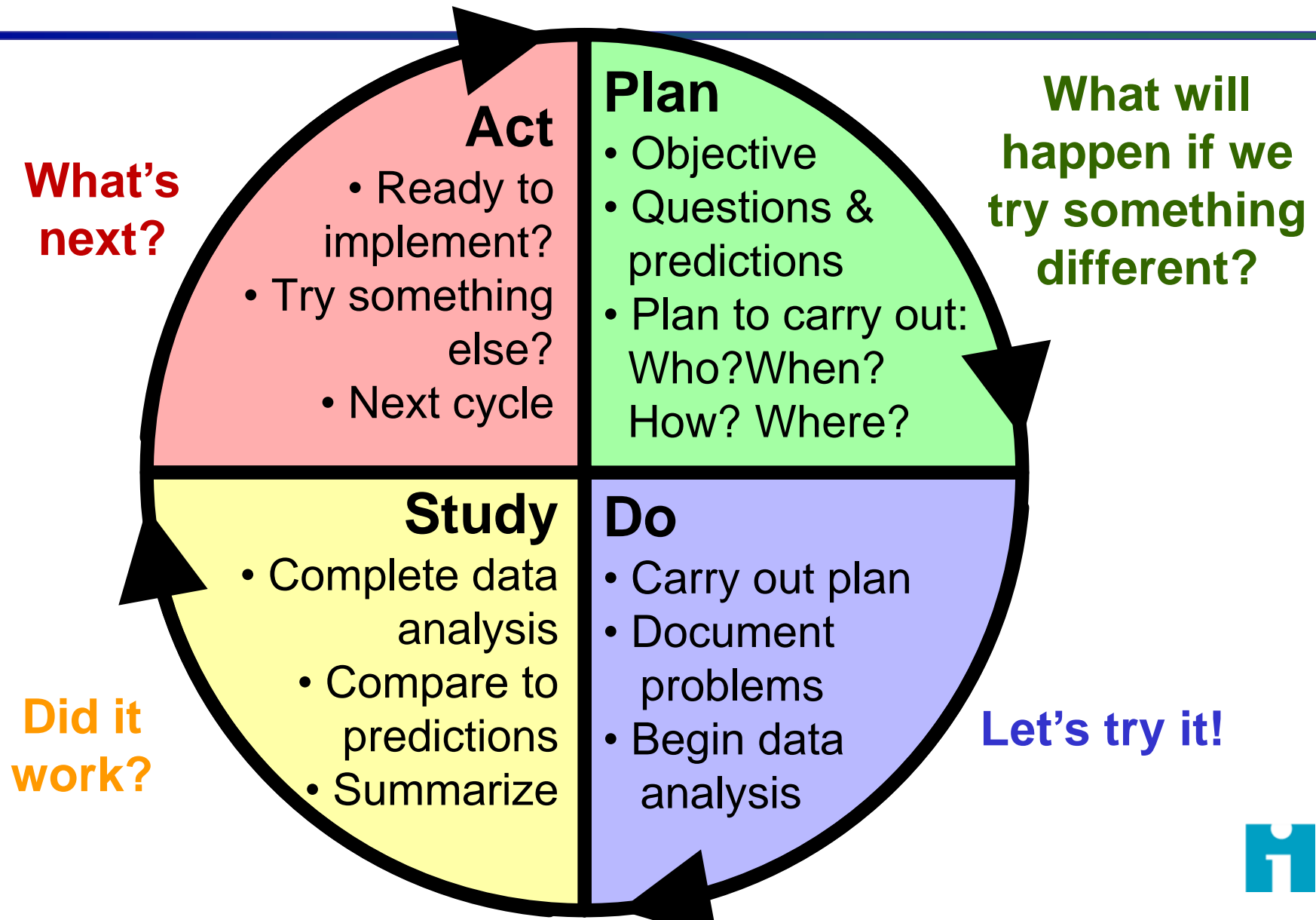
A Model for Learning and Change

Now, let's review the PDSA part of the MFI and tests of change

Langley, et al, *The Improvement Guide*, 2009

The PDSA Cycle for Learning and Improvement

What will happen if we try something different?

Plan
- Objective
- Questions & predictions
- Plan to carry out: Who? When? How? Where?

What's next?

Act
- Ready to implement?
- Try something else?
- Next cycle

Did it work?

Study
- Complete data analysis
- Compare to predictions
- Summarize

Do
- Carry out plan
- Document problems
- Begin data analysis

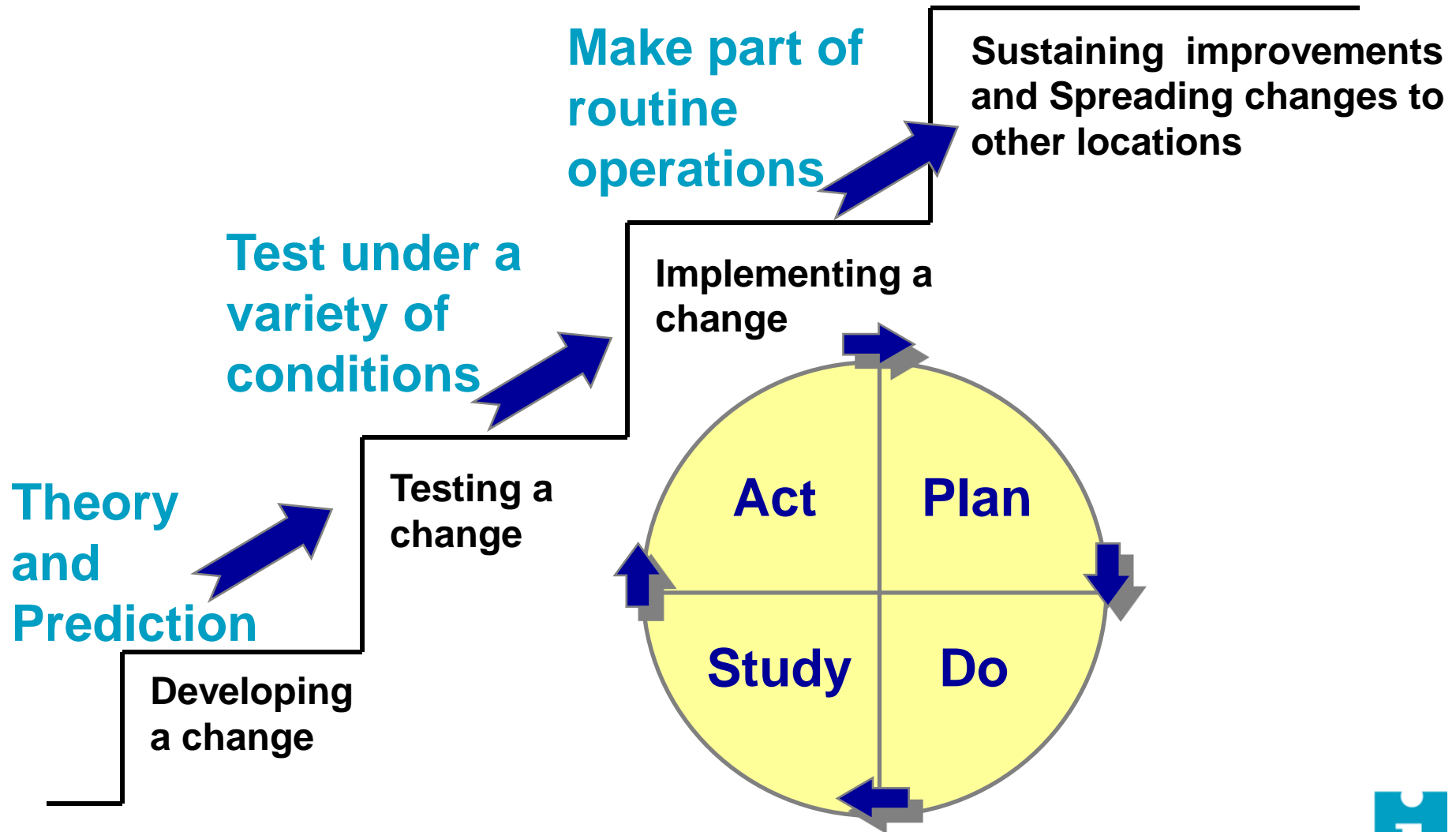**Let's try it!**

Quick PDSA Quiz

1. How many of you know what PDSA stands for?

2. How many of you have run 1 or more PDSAs in the same day?

3. How many of you ran a PDSA this week (Monday or Tuesday)?

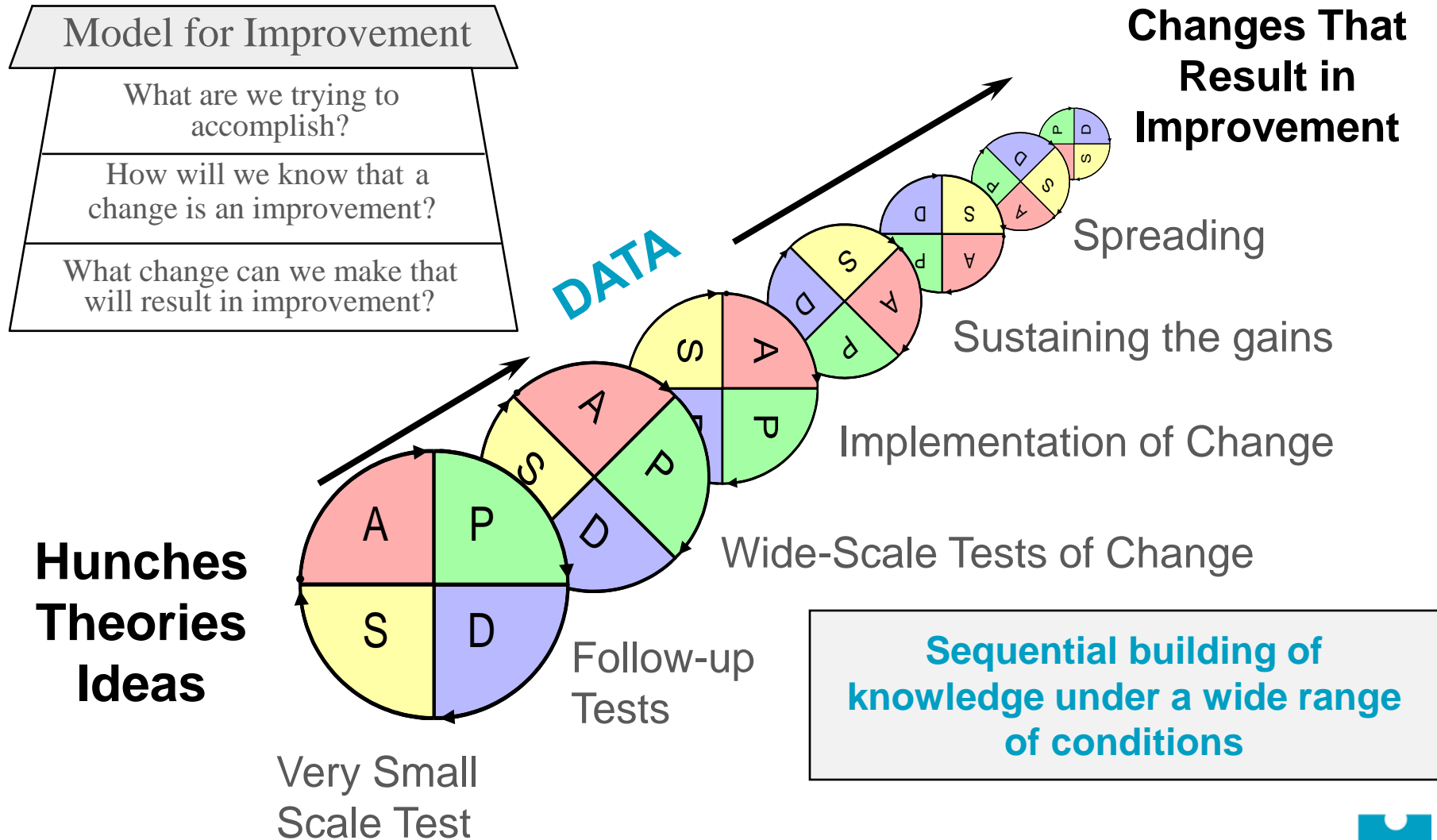4. If you didn't run one this week when did you last run a PDSA?

14

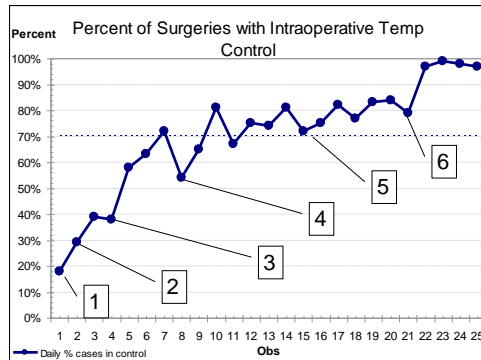# You actually do PDSAs every day

The Sequence of Improvement

The key is to have repeated use of the PDSA Cycle for testing

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?

DATA

Changes That Result in Improvement

Spreading

Sustaining the gains

Implementation of Change

Wide-Scale Tests of Change

Hunches Theories Ideas

Follow-up Tests

Very Small Scale Test

Sequential building of knowledge under a wide range of conditions

PDSA Example
Change Idea: Standardize Intra-operative Temperature Control

Percent of Surgeries with Intraoperative Temp Control

Mini-measure tracks improvement cycles

Learning from data

99% Reliability

Cycle 6: Educate staff on new standards

Cycle 5: Standardize and document devices and protocol

Cycle 4: Analyze failures, test variation for selected surgical type

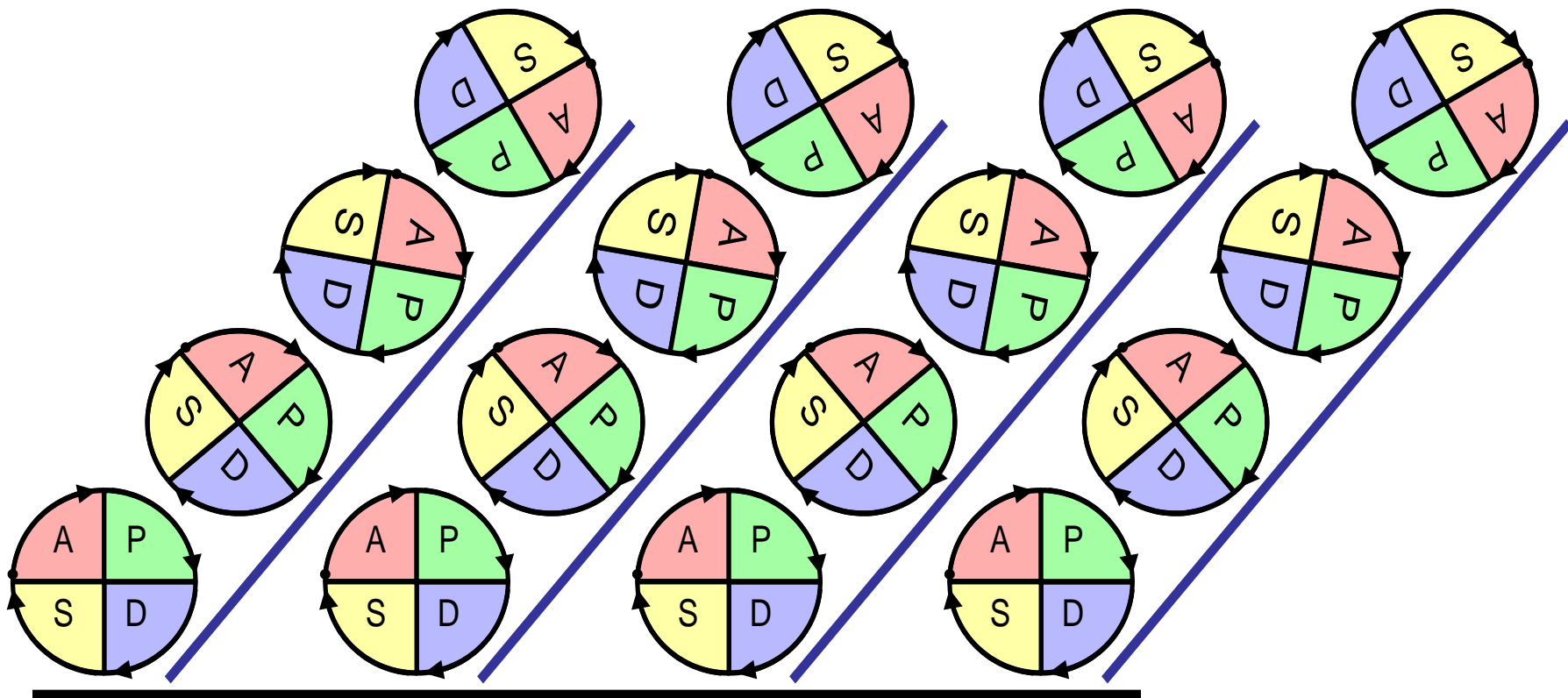Cycle 3, Day 3: 1st OR is reliable; test with 3 ORs and surgery types

Cycle 2, Day 2: Checklist and stocking process for warming devices in OR

Cycle 1, Day 1: With 1 OR team, assign responsibility for temp monitoring

Organizing the OR team & equipment will achieve reliable temp control

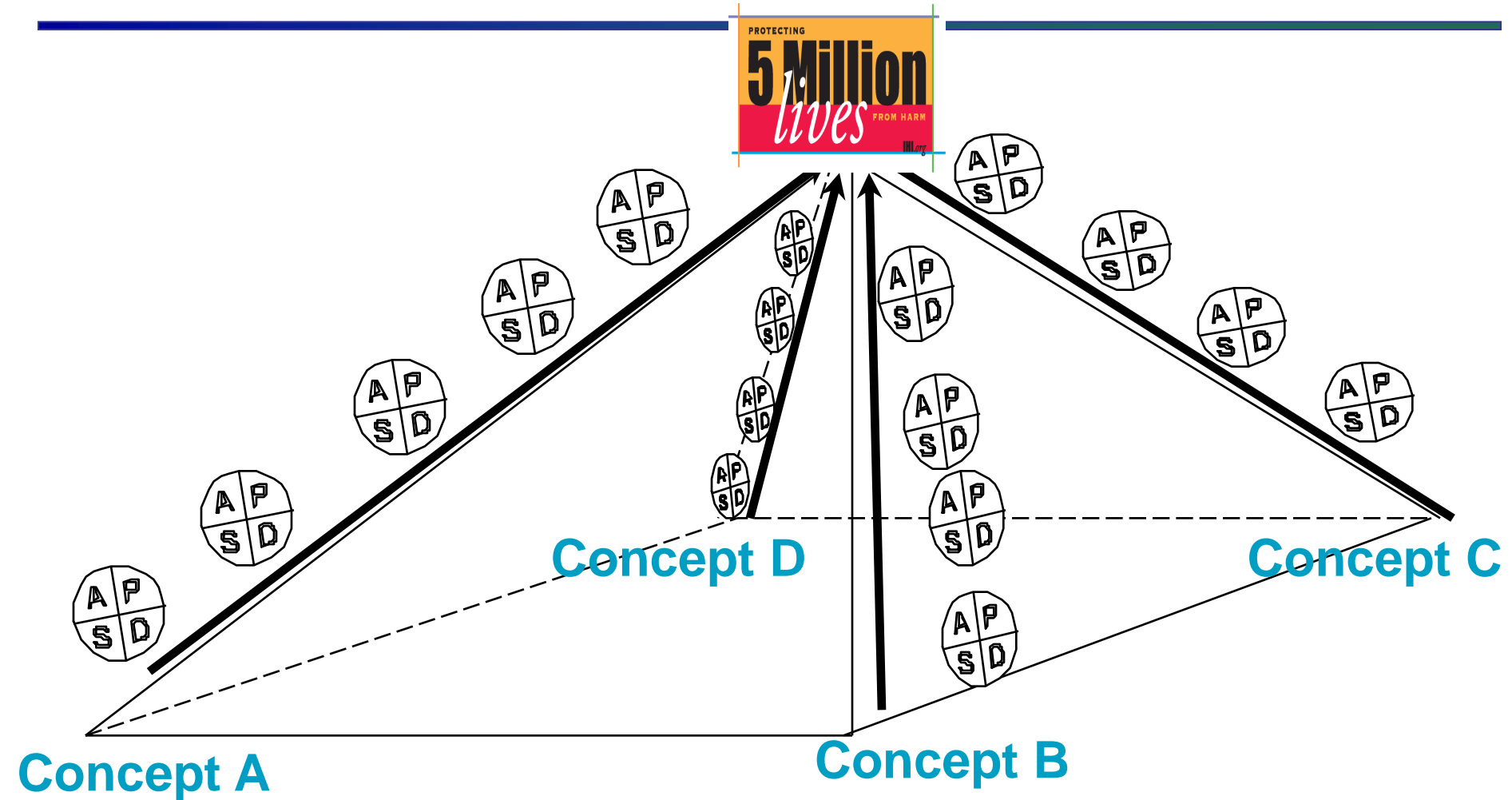# Working in Parallel on Multiple Change Ideas or Drivers

Monitor Temp

Stock supplies

Control Ambient Temp

Recovery Transfer

Multiple Change Concepts for a Single Aim

Change Concepts, Theories, Ideas

"What we gain from academic studies is knowledge.

What we gain from experience is wisdom."

Mohandas Gandhi

Failed Test…Now What?

Be sure to distinguish the reason:

- Change was not executed

- Change was executed, but not effective

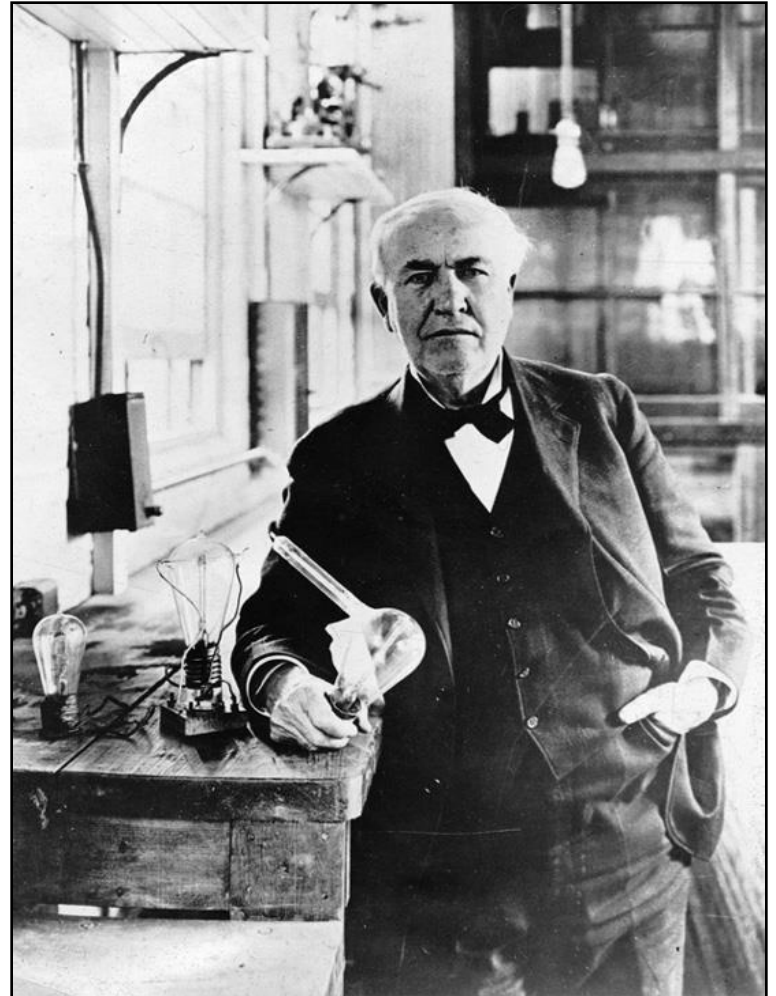**If the prediction was wrong – <u>not a failure!</u>**

- Change was executed but did not result in improvement

- Local improvement did not impact the secondary driver or outcome

- In either case, we've improved our understanding of the system!

The Value of "Failed" Tests

"I did not fail one thousand times; I found one thousand ways how not to make a light bulb."

Thomas Edison

It took 40 attempts to create WD-40

The 40th time was the charm for the blue canister that boasts more than 2,000 uses. In 1953, chemist Norm Larsen finally created on his 40th try, a formula to stop corrosion by displacing moisture (hence the name "Water Displacement , 40th attempt).

Sir James Dyson

"I made 5,127 prototypes of my vacuum before I got it right. There were 5,126 failures. But I learned from each one.

That's how I came up with a solution. So I don't mind failure. I've always thought that schoolchildren should be marked by the number of failures they've had. The child who tries strange things and experiences lots of failures to get there is probably more creative."

Increasing the Pace
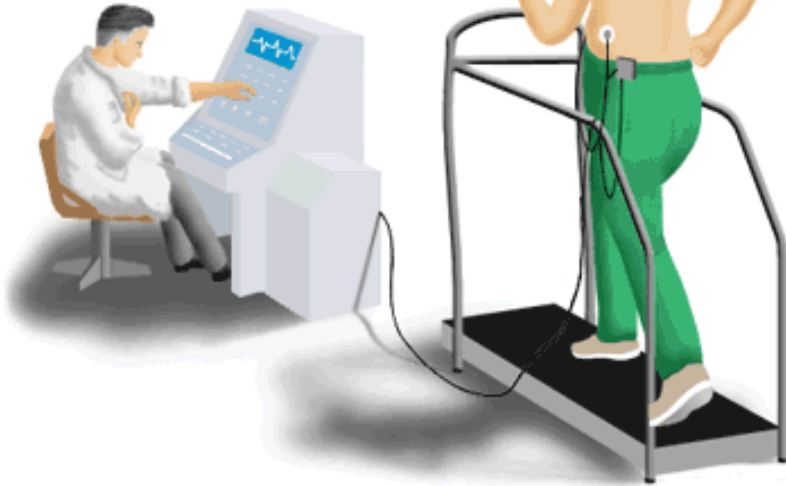
$$S + P + C = O$$

- **Smaller Scale Tests:** One patient, one staff, try it once to get started
- **Test Multiple Drivers:** Assign individual responsibility for testing changes
- **Test Multiple Change Ideas:** Work in parallel to accelerate learning
- **One or more Tests A Day** keeps improvement in play!