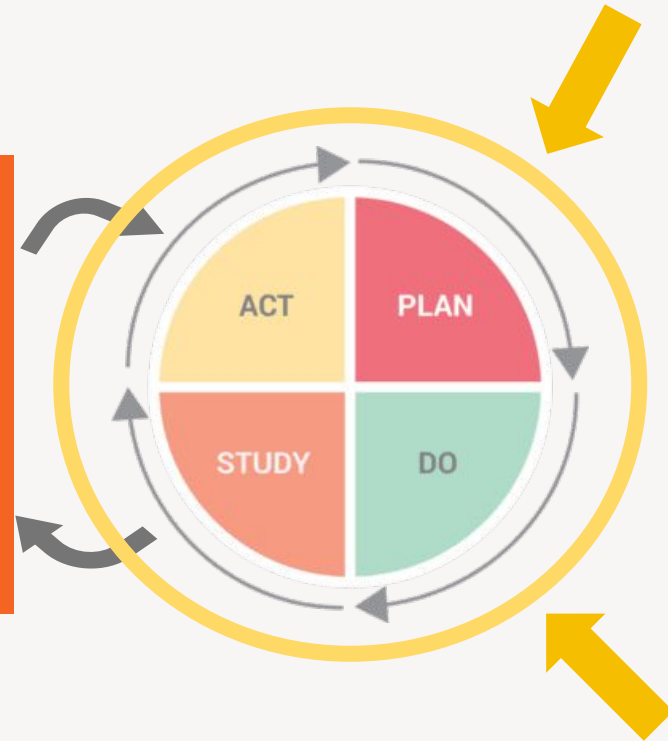# Quality Improvement 101

3 PDSAs

Model For Improvement: PDSAs

What are we trying to accomplish?

How will we know a change is an improvement?

What change can we make that will result in improvement?

ACT PLAN

STUDY DO

Developed by the IHI

What is a PDSA cycle?

A time-limited test of change to a community's system

- Specific, actionable, and measurable tests of change ideas

- Quickly confirms a team's thinking or leads them to pivot

- Applies to a system, not a one-time event

- Keeps teams from getting stuck

ACT PLAN

STUDY DO

Why do we need to test?

This changes the way we implement change ideas and ensures improvement!

Approve

Implement

What do we need to test?

- You need to test **changes,** not tasks.

    - *What is the difference?*

TASKS ❌

- Planning
- Have a meeting
- Educate staff
- Assign responsibility

(These may be necessary to set the test up for success, but not a test on their own.)

TEST ✅

- Trying a new meeting structure
- Trying new process to gather by-name data
- Trying new process to support participation from people with lived experience

Change is specific, actionable, and measurable, which allows you to have an explicit prediction of how it will impact the outcome.

Where do you start?

Will there be a **high or low impact** to the aim?

What are the benefits and opportunities? What are the risks and barriers?

Will it be **easy or difficult to implement**?

What resources will be needed? How much time and effort will be required? Is it easily measurable?

Once picked, establish an improvement team to work on the change idea.
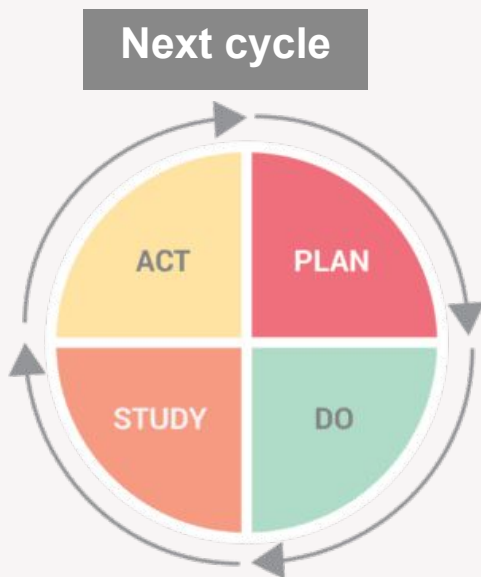*Remember: you can run tests simultaneously!*

How do we use a PDSA cycle?

What's next?
- *ADOPT: implement?*
- *ADAPT: make changes?*
- *ABANDON: try something else?*

What will happen if we try something different?
- *Objective*
- *Questions and predictions*
- *Plan to answer: who, what, when, how, where*

Next cycle

ACT

PLAN

STUDY

DO

Did it work?
- *Analyze data*
- *Compare predictions*
- *Summarize what happened*

Let's try it!
- *Carry out the plan*
- *Document challenges*
- *Begin data analysis*

Developed by the IHI
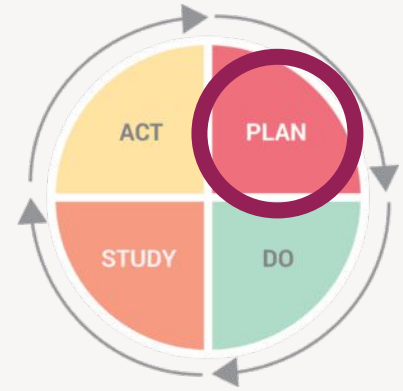
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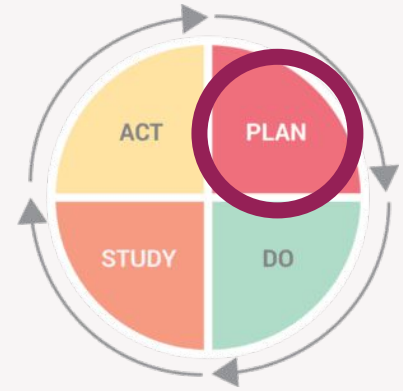
PLAN

Set Objectives

- What is the objective of the PDSA?
  - *Test a new idea? Test a change to an existing process/tool/resource?*

- What is your aim and how does it relate to it?
  - *Which driver does this change idea fit under?*
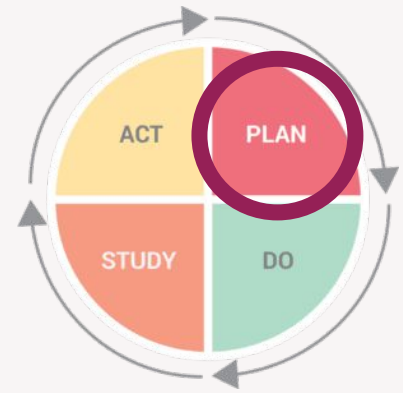
- What questions do you want to answer?

Establish the Change and Outcome

- What is the change idea?

- What is the predicted outcome of the change idea?

- How do you plan on collecting data?
  - *How will we know that there has been an improvement? What will be different?*

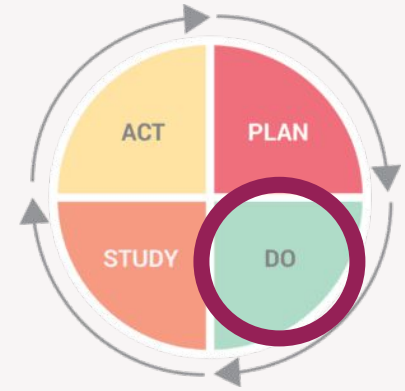- How long will we test this change to see it it worked?

PLAN

Establish a good test

- Directed by your data — *what is it telling you?*

- Applies to a repeating system, not a one-time event or activity

- Specific, actionable, measurable, and time-bound

- It can be quickly implemented and can rapidly confirm or disrupt your thinking

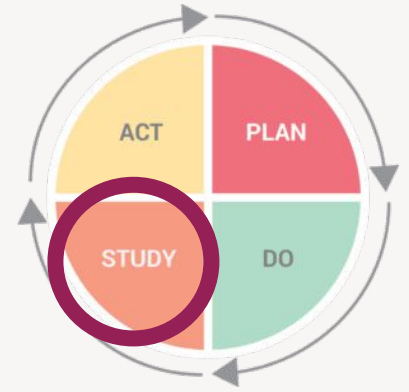- Helps your team get and/or stay unstuck

DO

DO IT!

- Establish a bias towards action
- Carry out the plan
- Document challenges and learnings
- Begin data analysis

STUDY

Document what happened without judgment.

- This is where you measure!

    - *What did we learn? What did our measures tell us?*
    - *Were our assumptions and predictions accurate?*
    - *Did the implementation of the change go exactly as planned?*
    - *Were there any surprises?*
    - *What was the impact towards the aim?*

ACT
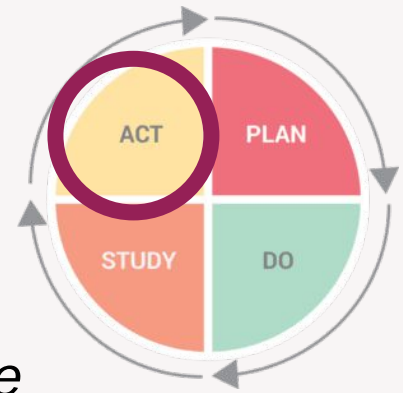
How will you **move forward?**

- **Adopt?**
  - *Reiterate the original idea on a larger scale until ready to implement?*
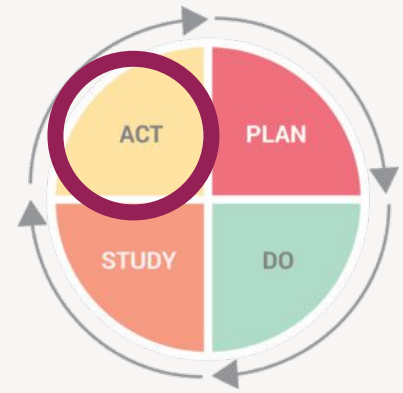 - *Test was successful*

- **Adapt?**
  - *Add changes to the idea?*
  - *Test was both successful and unsuccessful*

- **Abandon?**
  - *Test a new idea based on learnings?*
  - *Test was unsuccessful*

What if a test ~~failed~~ was unsuccessful?

1. Distinguish the reason:
    ○ *Was a change **not executed**; or*
    ○ *Was there a change executed, but it was **not effective**.*
    ○ *The change idea was executed, but it did not have an impact to the secondary driver (of your driver diagram it is related to) or other aims you set.*

2. See it as a prediction being wrong — not as a failure!

Regardless of success, we've improved our understanding of the system!

PDSA Mindsets
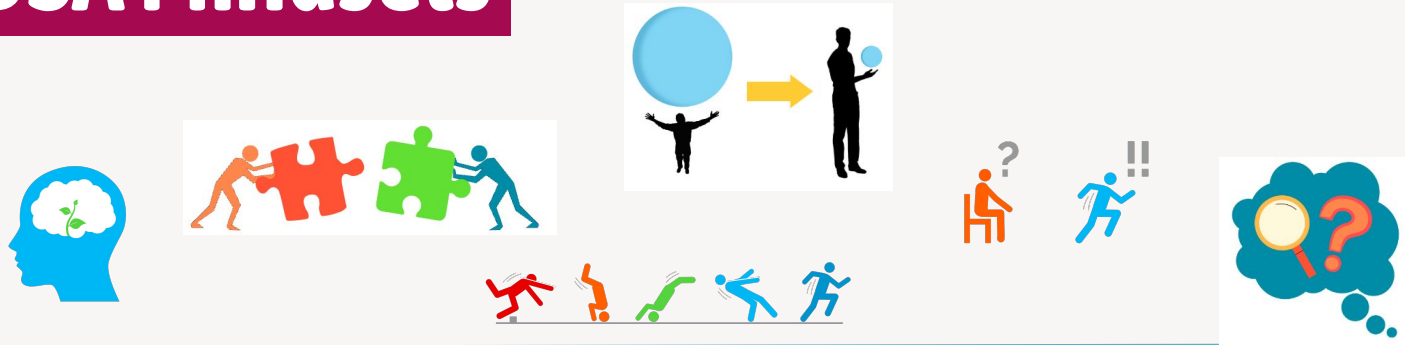
- **Don't get ahead of your knowledge —** *keep testing!*

- **Use scarce resources wisely** *— if it isn't working, pivot!*

- **Mitigate unintended consequences with curiosity —** *such as cost, side effects, and balancing measures.*

- **Reduce resistance to change** *— start off small.*

PDSA key points

- The test of change cannot be too small.

- One PDSA will lead to another ("ramping").

- It helps you look at your system thoroughly.

- You learn from your work (and mistakes).
  - Fail forward!

- It can produce rapid results.