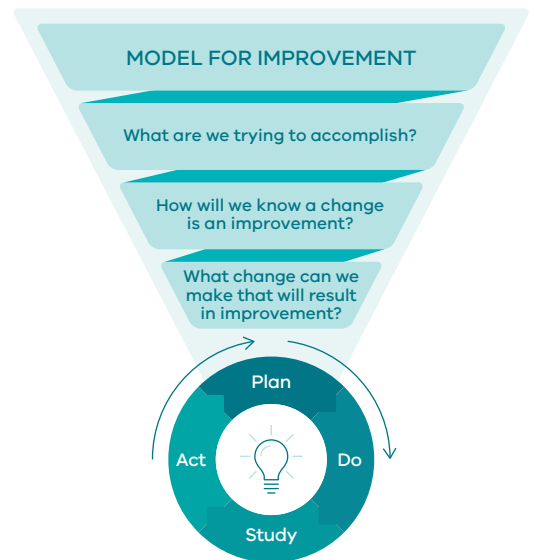# PDSA Ramping

Overview

Once you have answered the three core questions of the Model for Improvement, it is time to start testing your change ideas. This is done by using the 'machine' of the Model for Improvement – Plan Do Study Act (PDSA) cycles.

PDSA cycles should start very small and be scaled up over time. This means making decisions each cycle about the conditions (e.g. size, scale and context) you will test your change under. The more conditions, and combinations of conditions you test, the greater the degree of belief you will have that your change idea will result in improvement when implemented.

The process of gradually increasing the scale and complexity of the testing conditions is called **PDSA ramping**.

MODEL FOR IMPROVEMENT

What are we trying to accomplish?

How will we know a change is an improvement?

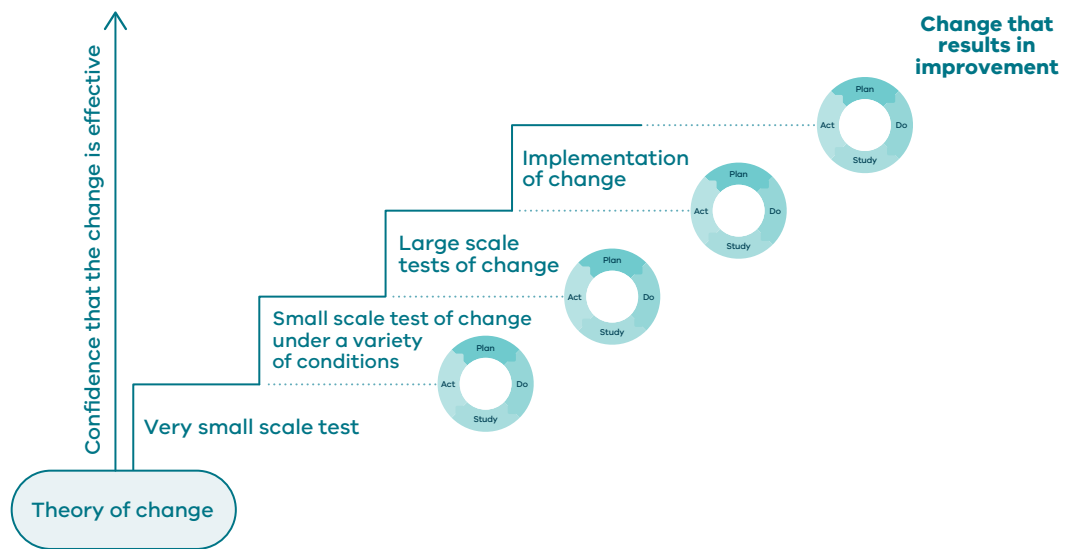What change can we make that will result in improvement?

Plan · Do · Study · Act

Progressing up the PDSA ramp (figure 1) represents moving from learning from safe to fail towards confirmed knowledge that your change idea will result in an improvement.

How to use PDSA ramps

Plan: the prediction phase

The following steps outline how to ramp up your PDSA cycles.

1. **Very small-scale test:** PDSA cycles should start very small (think one patient, one day, or one team member). Small tests are important so that you can test safely and quickly and build confidence that the change idea is effective and appropriate.

2. **Testing under a variety of conditions:** conditions may include different times, locations, expertise and experience of people involved in testing, or the number of people involved in the testing.

3. **Wide scale tests of change:** expanding the scale and complexity of your testing conditions i.e. involving more staff or expanding the time period of testing.

4. **Implementation of change:** embedding the change into daily practice.

5. **Spread:** disseminating or replicating a successful improvement initiative across different settings, departments, or levels within an organisation or community.

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Figure 1: Improvement ramp adapted from Langley et al.

Important considerations

The below table is a useful tool for determining what scale you should use for your PDSA test. This table considers the potential stage of the improvement journey and what the next steps should be.

Current Situation		Staff readiness for change		
		Resistant	**Indifferent**	**Ready**
Low Confidence that current 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 current 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*

Table 1. Determining the appropriate scale for PDSA cycle test adapted from Langley et al.

Additional resources

To learn more about Quality Improvement you can access the following resources:

- SCV Quality Improvement Toolkit
- Institute for Healthcare Improvement website
- NSW Clinical Excellence Commission Quality Improvement Tools

References

Bennett, B., Grunow, A., Park, S. (2022). Improvement Science at your fingertips. ISC LLC Langley, G. J., Nolan, K. M., Norman, C. L., Provost, L. P., & Nolan, T. W. (1996).

The improvement guide: A practical approach to enhancing organizational performance. San Francisco: Jossey-Bass Langley

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PDSA ramping planning template example

Project: **Improving the feedback management process at Westside Hospital**

Date:

CHANGE TO BE TESTED: DOCUMENTING FEEDBACK AT THE POINT OF CARE

CYCLE NUMBER	DATE	STAFF READINESS	DEGREE OR BELIEF IN CHANGE	COST OF FAILURE	RAMPING LEVEL	CONDITIONS FOR TESTING
1	25/2/2024	Resistant	Low Confidence	Small	Very small	Documenting 1 complaint on 1 ward with 1 nurse
2	1/03/2024	Resistant	Low Confidence	Small	Very small	Document 1 complaint with aid of quick reference guide
3	9/3/2024	Indifferent	High Confidence	Small	Small	Documenting 5 complaints on 1 ward with a different nurse
4	20/3/2024	Ready	High Confidence	Small	Large	Documenting all complaints received on 1 ward for week
5	1/4/2024	Ready	High Confidence	Large	Large	Documenting all complaints on 1 ward for 1 month
6	1/5/2024	Ready	High Confidence	Small	Implement	Implement across all of Ward X

PDSA ramping planning template

Project: **Date:**

CHANGE TO BE TESTED:

CYCLE NUMBER	DATE	STAFF READINESS	DEGREE OR BELIEF IN CHANGE	COST OF FAILURE	RAMPING LEVEL	CONDITIONS FOR TESTING

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