

Implementing and evaluating change using Plan-Do-Study-Act (PDSA)

A summary of



National Collaborating Centre
for Methods and Tools
Centre de collaboration nationale
des méthodes et outils

How to cite this NCCMT summary:

National Collaborating Centre for Methods and Tools (2017). *Implementing and evaluating change using Plan-Do-Study-Act (PDSA)*. Hamilton, ON: McMaster University. (Updated 01 September, 2017) Retrieved from <http://www.nccmt.ca/resources/search/273>.

Categories:

Tool, Implement, Evaluate, Organizational change

Date posted:

February 27, 2017

Date updated:

September 1, 2017

Tool

Relevance For Public Health

Originally, the PDSA approach was developed by the Associates in Process Improvement as a general framework. The PDSA cycle can be used, for example, to optimize the implementation of an automated cancer screening outreach program as part of standard health care (See Supplementary resources: "Applying the plan-do-study-act (PDSA) approach in pragmatic research with safety net health centers."

Description

The [Plan-Do-Study-Act](#) (PDSA) framework is a model for testing change to evaluate whether a series of decisions or activities have resulted in improvement.

The PDSA framework, also known as the Model for Improvement, is at the core of the Institute for Healthcare Improvement's approach to quality improvement (IHI-QI).

The PDSA framework is based on experiential learning and guiding purposeful action. It outlines three clarifying questions and the PDSA cycle. The PDSA framework is intended to help implement and evaluate a desired change. The process typically involves conducting several different "tests of change" followed by systematically documenting, optimizing, re-testing, and re-evaluating the iterative PDSA cycles (those that are predicted to lead to sustained improvement) using the [PDSA worksheet](#) as a tool.

The PDSA cycle includes the following stages:

- **P**lan: Develop a plan to test the desired change
- **D**o: Carry out the test
- **S**tudy: Observe and learn from the consequences
- **A**ct: Determine what modifications should be made to the test

Though the PDSA is at the core of the IHI-QI it is not synonymous with its efforts. Other notable quality improvement methods include the method of "Lean." A document that compares Lean and quality improvement is provided [here](#).

Implementing the Tool

Who is Involved?

Implementing this framework could involve program leads, project leads, managers and staff.

Steps for Using Tool

The PDSA framework outlines an algorithm that is designed to help 'achieve an aim' at any scale. As users work through the PDSA steps, the algorithm can be used as a tool for gaining practical knowledge. Moreover, it helps users to dissect their perceived understanding of how to accelerate improvement in clinical health care settings while also allowing immediate, sequential testing of changes.

The main ideas of the PDSA approach are as follows:

- Questions are at the root of testing change.
- Success of small changes can lead to wide-spread implementation of change.
- Informed action drives improved results.

These summaries are written by the [NCCMT](#) to condense and to provide an overview of the resources listed in the [Registry of Methods and Tools](#) and to give suggestions for their use in a public health context. For more information on individual methods and tools included in the review, please consult the authors/developers of the original resources.

Conditions for Use

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Evaluation and Measurement Characteristics

Evaluation

Information not available

Validity

Not applicable

Reliability

Not applicable

Methodological Rating



Not applicable

Tool Development

Developers

Associates in Process Improvement

Website: www.apiweb.org

Method of Development

Release Date

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Resources

Title of Primary Resource	PDSA worksheet for testing change
File Attachment	None
Web-link	http://www.ihi.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx
Reference	
Type of Material	Document
Format	On-line Access
Cost to Access	None.
Language	English
Conditions for Use	Need to register (free). © 2017 Institute for Healthcare Improvement

Title of Supplementary Resource	Institute for Healthcare Improvement
File Attachment	None
Web-link	http://www.ihl.org/Pages/default.aspx
Reference	
Type of Material	Website
Format	On-line Access
Cost to Access	None.
Language	English
Conditions for Use	© 2017 Institute for Healthcare Improvement

Title of Supplementary Resource	Applying the plan-do-study-act (PDSA) approach in pragmatic research with safety net health centers
File Attachment	51727_Plan-Do-Study-Act_Petrik-Rev.pdf
Web-link	https://www.kpchr.org/stopcrc/
Reference	Petrik, A.F., Cury, J., Schneider, J.L., Rivelli, J.S., Seibel, E., D'Agostini, B., et al. (2016). Applying the plan-do-study-act (PDSA) approach in pragmatic research with safety net health centers (poster presentation). 9th Annual Conference on the Science of Dissemination and Implementation. December 14-16, 2016.
Type of Material	Poster presentation
Format	Pdf
Cost to Access	None.
Language	English
Conditions for Use	© 2016 Kaiser Permanente Center for Health Research

Title of Supplementary Resource	Comparing Lean and quality improvement
File Attachment	None
Web-link	https://www.med.unc.edu/pediatrics/quality/documents/IHIComparingLeanandQIWhitePaper.pdf
Reference	Scoville, R. & Little, K. (2014). Comparing Lean and quality improvement. IHI White Paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2014.
Type of Material	Document
Format	On-line Access
Cost to Access	None.
Language	English
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