ccNSO Basic model/framework for continual improvement

What is a Continuous Improvement framework?

A Continuous Improvement framework is intended to provide teams with a structure for process improvement projects and guidelines around which tools can support which parts of a project.

The idea of a framework is to support sustainable process improvements with a disciplined, data-driven approach. The tools and templates are guidelines which can be adapted to fit the particular needs of a particular project.

(source: https://amadvocate.com/wpama/wp-content/uploads/2019/01/Continuous-Improvement-v1.6.pdf)

Identify Business processes

A Business Process Is:

- Structured activities or tasks by people or equipment which in a specific sequence produce a service or product (serves a particular business goal) for a particular customer or customers
- All processes have
    - ◊ Inputs and outputs
    - ◊ Suppliers and customers
    - ◊ Participants and owners
    - ◊ Stakeholders
    - ◊ Boundaries

Process Improvement Is:

- A capability to identify, analyze and improve existing business processes within an organization to meet new goals and objectives
- A method to introduce process changes to improve the quality of a product or service, to better match customer needs, but it can also look to increase profits and performance and/or reduce costs

Why is Continuous Improvement Important?

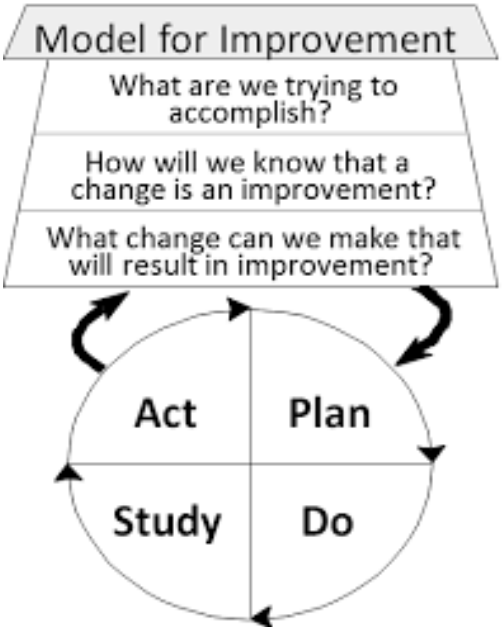
Process Improvement can help to...

- Develop a sustainable solution that will work across the organization
- Reduce variations, duplication & wasted effort
- Eliminate non-value-adding activities
- Align activities to the strategy & objectives

- Identify opportunities to leverage the economies of scale across areas
- Identify & mitigate risks
- Outline the systems, tools & resources required

Evolution of PDCA / PDSA Framework - Model for Improvement

The Model for Improvement,* developed by Associates in Process Improvement, is a simple framework for accelerating improvement. The model is compatible with any change models that organizations may already be using and can help to accelerate improvement.



https://www.murrayphn.org.au/wp-content/uploads/2019/06/Cancer-Screening-QI-Toolkit-14-Model-for-Improvement.pdf

Template Model for improvement
https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/pdsacycledebedits.pdf

Template to be used consistently throughout the organization for continual improvement of all process, services, working methods etc. Every aspect (to extent with clear boundaries) subject to continuous improvement (organized along framework)

Assume understanding of process (process map), Governance, Providing meetings

Template for documenting improvement

Building on the Plan-Do-Study-Act (PDSA) tool to plan and document your progress with tests of change

1. **What are we trying to accomplish (aim)?**

State your goals with respect to process, service,

2. **How will we know that change is an improvement (measures)?**

Describe the measureable outcome(s) you want to see

3. What change can we make that will result in an improvement?
Define the processes currently in place; use process mapping or flow charting

Identify opportunities for improvement that exist (look for causes of problems that have occurred or identify potential problems before they occur. Identify:

- Points where breakdowns occur
- "Work-a-rounds" that have been developed
- Variation that occurs
- Duplicate or unnecessary steps

Decide what you will change in the process; determine your intervention based on your analysis

- Identify better ways to do things that address the root causes of the problem
- Learn what has worked at other organizations (copy)
- Review the best available evidence for what works (literature, studies, experts, guidelines)
- Remember that solution doesn't have to be perfect the first time

The Plan-Do-Study-Act (PDSA) tool/method

Plan

Establish objectives and processes required to deliver the desired results

Plan: Recognize an opportunity and plan a change.

Do

Carry out the objectives from the previous step.

Do: Test the change. Carry out a small-scale study.

Check/Study

During the check phase, the data and results gathered from the do phase are evaluated. Data is compared to the expected outcomes to see any similarities and differences. The testing process is also evaluated to see if there were any changes from the original test created during the planning phase. If the data is placed in a chart it can make it easier to see any trends if the plan–do–check–act cycle is conducted multiple times. This helps to see what changes work better than others and if said changes can be improved as well.

Check: Review the test, analyze the results, and identify what you've learned.

Act

Also called "adjust", this act phase is where a process is improved. Records from the "do" and "check" phases help identify issues with the process. These issues may include problems, non-conformities, opportunities for improvement, inefficiencies, and other issues that result in outcomes that are evidently less-than-optimal. Root causes of such issues are investigated, found, and eliminated by modifying the process. Risk is re-evaluated. At the end of the actions in this phase, the process has better instructions, standards, or goals. Planning for the next cycle.

can proceed with a better baseline. Work in the next do phase should not create a recurrence of the identified issues; if it does, then the action was not effective.

Act: Take action based on what you learned in the study step. If the change did not work, go through the cycle again with a different plan. If you were successful, incorporate what you learned from the test into wider changes. Use what you learned to plan new improvements, beginning the cycle again.

WHEN TO USE THE PDCA CYCLE

Use the PDCA cycle when:

- Starting a new improvement project
- Developing a new or improved design of a process, product, or service
- Defining a repetitive work process
- Planning data collection and analysis in order to verify and prioritize problems or root causes
- Implementing any change
- Working toward continuous improvement

Observations:

The model can be applied to the improvement of processes, products, and services in any organization (from: evolution) The model supports improvement efforts in a full range from the very informal to the most complex (e.g. introduction of a new product line or service for a major organization).

A fundamental principle of the scientific method and plan–do–check–act is iteration—once a hypothesis is confirmed (or negated), executing the cycle again will extend the knowledge further. Repeating the PDCA cycle can bring its users closer to the goal, usually a perfect operation and output

When PDCA is used for complex projects or products with a certain controversy, checking with external stakeholders should happen before the Do stage, since changes to projects and products that are already in detailed design can be costly; this is also seen as Plan-Check-Do-Act

PDCA and PDSA are relatively similar, general framework: Model for Improvement 1996, 2009

(https://rauterberg.employee.id.tue.nl/lecturenotes/DG000%20DRP-R/references/Moen-Norman-2009.pdf)

https://en.wikipedia.org/wiki/PDCA

https://web.archive.org/web/20110812141344/http://blog.bulsuk.com/2009/02/taking-first-step-with-pdca.html#axzz1Up9J5IQz

https://rauterberg.employee.id.tue.nl/lecturenotes/DG000%20DRP-R/references/Moen-Norman-2009.pdf

Plan-Do-Study-Act (PDSA) tool to plan and document your progress with tests of change

Plan What change are you testing with the PDSA/PDCA cycle(s)? (see above) What do you predict will happen and why? Who will be involved in this PDSA/PDCA? (e.g., staff, volunteers other stakeholders ?). Plan a small test of change. How long will the change take to implement? What resources will they need? What data need to be collected?	**List your action steps along with person(s) responsible and time line.**
Do Carry out the test on a small scale. Document observations, including any problems and unexpected findings. Collect data you identified as needed during the “plan” stage.	**Describe what actually happened when you ran the test.**

Study/Check/Monitor Study and analyze the data. Determine if the change resulted in the expected outcome. Were there implementation lessons? Summarize what was learned. Look for: unintended consequences, surprises, successes, failures.	
Act Based on what was learned from the test: Adapt – modify the changes and repeat PDSA cycle. Adopt – consider expanding the changes. Abandon – change your approach and repeat PDSA cycle.	**Describe what modifications to the plan will be made for the next cycle from what you learned.**