

Quality Improvement Basics: Introduction to Quality Improvement - Processes and SystemsTranscript

Slide 1 Objectives

After completing this module, participants will be able to

- Define a process and a system.
- Discuss what is meant by systems thinking.
- Recognize benefits and pitfalls of process and systems thinking.

Slide 2 Process and Systems

One of the foundations of quality improvement is that the focus is on systems and processes – recognizing that these impact how people can perform in an organization.

A process is most easily thought of as any standard sequence of steps that are followed to complete a task or produce a result. In an organization, processes are often guided by a written policy or procedure which outlines the expectations for performance. For example, hospitals have a series of processes in place that guide patients and provide care from admission on through to discharge. Processes can also develop more organically. For example, each of us has likely developed a standard sequence of steps we follow to get us out of bed and ready to begin each day. In a process, the steps are intended to be repeatable and predictable to produce the same outcome over and over. Processes vary in complexity and therefore may require training to help people learn the steps to follow them.

A system is the environment in which processes are implemented. A system is the combination and relationship between various processes, the people involved, organizational culture, environmental factors, equipment involved (such as electronic health records) and resources available.

Slide 3 Processes and Systems cont.

Processes and systems are interrelated. Processes are developed and implemented within systems. Systems impact how well processes work for staff implementing the process steps. Processes and systems are set up to get exactly the results they get.

Slide 4 Process Thinking

Becoming a process thinker requires learning how to see or find processes and identify the steps and decision points. It is helpful to diagram the steps and decision points because processes can be complex, and a diagram allows for better communication of the sequence of steps. In quality improvement, we map processes so that we can identify where (and then why) the sequence of steps is not happening as intended or where improvements can be made. We can then diagram the desired or improved sequence of steps. We'll learn how to do this in the modules on process mapping.

Process thinking is essential to Quality improvement because processes are often the focus of improvement efforts. The focus of quality improvement is on processes and systems and not on

individual behavior - processes and systems guide individual behavior. If we want to change behavior, **or** support staff in doing the right things at the right time, we must look to changing processes and systems. We need to understand what is driving behavior, and what barriers or reasons exist to carrying out processes as intended.

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Slide 5 Systems Thinking

While process thinking focuses on how the steps of the process link together to produce the desired output, systems thinking takes a broader view of how all the parts of the system interact and influence one another. Systems thinking looks at the big picture – the relationship between the individual parts within the system – and realizes change at any point or level may have an impact throughout the system. The big picture and the individual parts cannot be separated. In systems thinking, each part of the system is not viewed in isolation. Each part has value derived from its role in the system and the parts are best understood by looking at how they relate to the other parts of the system rather than focusing only their own individual function or output. Systems thinking requires critical thinking skills such as:

- Understanding the logical connections between parts of a system
- Detecting inconsistencies and common mistakes within the system
- And the ability to solve problems systematically.

Systems thinking requires situational awareness which can be thought of as being able to predict what may happen to the system as a whole in response to an action or a change in one part of the system. For example, when changes are made for a quality improvement project, such as new team members or technology or changes in process steps, how will this impact other parts of the system and other processes.

Slide 6 Pros and Cons of Process and Systems Thinking

There are benefits of system and process thinking because

- Systems and processes can make or break outcomes and results.
- Well-designed processes and systems decrease re-work and improve efficiency.

In systems thinking we recognize that quality Improvement tools alone are not sufficient to create improvements or design the most effective or efficient way to achieve a result or produce an outcome. Being able to identify and describe processes and understand how they are supported within the larger system is necessary for improvement work.

There are potential pitfalls to process and system thinking that can hinder progress or improvements. One is the desire to turn everything into a process. Organizations can develop processes that become "the way we do things around here" and the processes are not to be questioned. This has the potential to reduce staff resilience which we will talk more about in subsequent modules. It also takes practice to avoid getting bogged down in the details, such as specific tasks or steps that are part of a larger process you're attempting to change. Learning QI tools and techniques along with practice will help you determine the correct level of detail needed to understand process steps but not get overwhelmed.

Change is always occurring and should occur as we continue to look for new and better ways to do our work. Instead of saying, "this is how we do things around here," we need to say "this is how we do things around here until we find a better way."



Slide 7 Process and Systems Examples

Here are a few examples to understand what a system is vs. a process:

- A medical home clinic can be considered a system that is designed to deliver personcentered care to patients. To do so, they have many processes in place, including processes to guide shared decision making and to develop and implement a care plan. These two processes are linked and therefore, process and system thinking are needed if changes are to be made.
- Likewise with the system for medication administration in the hospital there are a number of processes involved such as ordering methods, checks for allergies and contraindications, dispensing mechanisms, and patient identity verification. These processes are in place for the medication to be ordered, filled, and administered correctly to the patient.
- Airlines, for example, have done a lot of work on systems and processes to achieve increasing levels of safety. Within overall safety systems, an example of specific processes are checklists that pilots use for take-off and landing.

Slide 8 In Summary

In summary:

- A process is a standard sequence of steps that are followed to complete a task or produce a result.
- A system is the environment in which processes are implemented. A system is the combination and relationship between various processes, the people involved, organizational culture, environmental factors, equipment involved, and resources available.
- Systems thinking looks at the big picture the relationship between the individual part within the system and realizes change at any point or level may have an impact throughout the system. Systems thinking recognizes how all moving parts work together and helps to anticipate and mitigate threats or problems. Systems thinking recognizes that the system's structure generates behavior. It encourages looking for cause and effect relationships. It encourages critical thinking about how systems impact processes and behaviors and resisting coming to quick conclusions about issues.
- There are potential pitfalls to process and system thinking that can hinder progress or improvements. One is the desire to turn everything into a process. Organizations can develop processes that become "the way we do things around here" and the processes are not to be questioned. This has the potential to reduce staff resilience.