

Using the 5S Lean Tool for Health Care

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Health care costs are increasing more rapidly than costs for other products and services. Health care providers, particularly hospitals, are under significant pressure to reduce costs while at the same time improving service and patient safety, reducing patient waiting times, and minimizing errors and associated litigation.

However, most hospitals are not making the necessary improvements in cost, quality, and safety. A report by the HHS Office of Inspector General finds that 20 percent of consecutive inpatient stays were associated with poor quality care, unnecessary fragmentation of care, or both.

Health care organizations, historically, have not been designed to make service processes or a "value stream" of care flow. Health care services often use a "batch and queue" process, with patients spending the bulk of their time waiting until a health care professional is ready (i.e., push versus pull with regard to service delivery). Patient cycle time (the total time from the beginning to the end of a process) in our hospitals, laboratories, and therapy settings becomes a key measurement that needs to improve.

Why Use Lean Tools in Health Care?

All types of organizations are leveraging Lean principles and tools. Many organizations are trying to function effectively in the face of growing challenges such as a high costs, declining market share, and limited capacity. In all of these cases, Lean can have an immediate, positive impact on business.

Health care organizations are made up of a series of processes with diverse services or lines of business. Therefore, you need to build delivery systems with these lines of business in mind.

Using Lean Thinking, your organization can achieve a number of benefits, which may include improved quality, increased operational flexibility, reduced cycle time within processes, more efficient use of space, consistent service delivery, reduced lead times, and reduced operating costs.

What Exactly is Lean?

There are a variety of techniques and tools available to achieve the objectives associated with Lean Thinking. Lean, however, is not simply a set of tools. Lean is a *problem solving approach* for continuous daily improvement. Lean is about creating increased value for your customers (patients) by eliminating wasteful activities. Any activity or process that consumes resources or adds cost or time without creating value is a target for elimination.

One of the important aspects of Lean is the focus on "service-level" improvements. Think in terms of value-stream improvements (e.g., outpatient surgery or inpatient obstetrical care value streams). Improvements made along an entire value stream or service will result in increased efficiency, improved quality, and increased safety with dramatic cost savings.

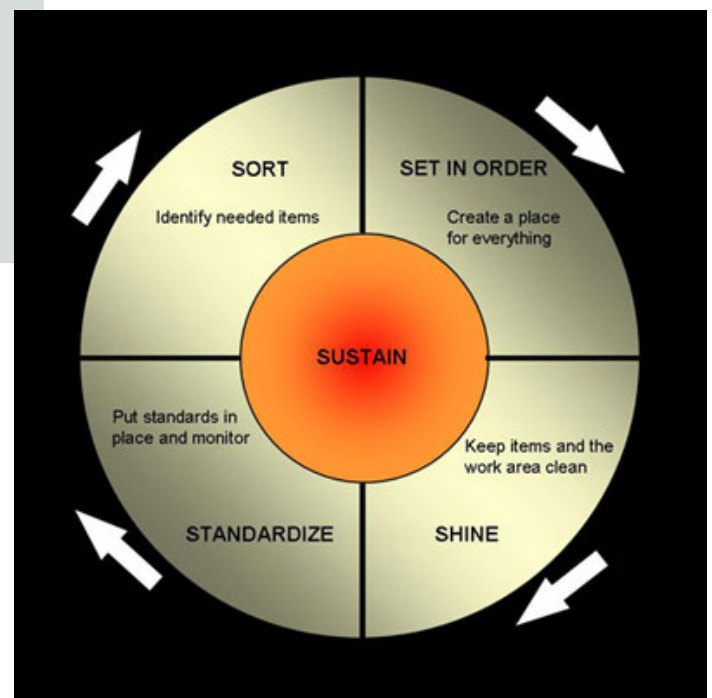
The following are key points of Lean Thinking that you must not lose sight of if you are going to be successful in its application:

- Each employee will arrive at work every day thinking about how they are going to improve their work environment; with this commitment, there is continuous daily improvement.
- Measurement is essential. Understanding the value stream baseline and the subsequent improvement achieved is critical. Measurement is key to continuous improvement and provides a basis for understanding your accomplishments.

Lean Tools: 5S

Lean tools grew out of the need to have mechanisms in place to support the lean way of thinking and to allow flow to permeate a process. Value stream mapping, 5S, Poka Yoke, and Kanban are among the most popular Lean tools.

The five components of 5S are defined as **sort**, **set in order**, **shine**, **standardize**, and **sustain**. 5S is a method that reduces waste in your work environment through better workplace organization, visual communication, and general cleanliness. This is one of the primary tools necessary to improve your processes by eliminating wastes such as motion, searching, inventory (queuing) and improve quality and functionality within all departments.



5S Benefits

5S drives a cleaner work environment and organizes the workplace. It is a Lean tool that should be implemented along with process improvements identified when value-stream mapping your business processes. When implementing 5S, you rapidly affect your work or production environment with a minimal expenditure. Most organizations report 5-10% efficiency improvement in several months, which is sustainable over time. 5S provides some of the following benefits:

- A cleaner workplace for enhanced safety and reduced clutter
- An organized, efficient workplace for increased productivity
- An always-ready environment that fosters and promotes compliance with regulatory standards
- The reduction of inventory and supply costs
- The recapture of valuable space and minimizing overhead costs
- The impact of “how we feel” about our workplace, organization, and ourselves

There will be naysayers that may argue that their messiness is beneficial to them; some point to the fact that time spent keeping their environment organized distracts from the important things in their jobs like time analyzing or thinking and defining new approaches to care.

However, they miss the point; truly organized people are not organized just for the sake of order. Instead, their organization is a result of having a process to manage all of the things in their lives. These folks avoid the repeated distraction paper or e-mails in their inbox by having a clear approach for handling all of the responsibilities in their lives. By managing things effectively, they avoid clutter and chaos.

How to Begin Thinking About 5S

When implementing 5S, staff should not focus on getting organized. Rather, they need to consider how they deal with all the things that come to them and what is within their environment; this will help in creating a 5S workplace.

For example, doctors do not focus on getting their operating room organized. Instead, they have a defined process for preparing for an operation: they wash their hands in a certain way; the instruments used are predefined and laid out in a specific way. Instruments are checked and counted in a standard way for each surgical case every day. The result of these processes is a 5S workplace.

Let us use the practical example of cleaning your garage to understand how you would implement 5S in the workplace.

The first step that you do when cleaning your garage is open the door, back out the cars, and pull everything out that is lying around. You then make piles of the things you will keep, what you will sell in the neighborhood garage sale, items you need to return to a neighbor, what to donate, and what to discard. This first step in the process is called “Sort.”

The next step is to put away the things that you wish to keep. However, this time you will put them in a specific location: “A place for everything and everything in its place.” You make a shadow board for your tools. This will allow you and others to look at the board in the future and know exactly what location to return the tool to, and you can easily identify missing tools by the shape of the empty space on the board. More importantly, it allows you to find your tools when needed. You install hooks for bicycles in the ceiling joints and clamps for brooms and shovels. This step in the process is called “Set in order.”

With everything sorted and set in order, it is time to clean the entire garage. When you are cleaning, you observe things that need to be fixed, such as the cracked switch plate and the torn weather stripping on the utility door. You repair these things so that they do not become a bigger problem, cause damage, or put a family member's safety at risk. Further, you hose down the garage floor and remove oil spills with a degreasing agent. This step is called “Shine.”

Now you can stand back and look at your accomplishment. The garage looks great. Everything is clean and organized; you can actually find what you are looking for in the garage. However, beware—you will need to repeat this exercise again in a few months because you did not “Standardize” and “Sustain” your efforts. Standardizing means to create the guidelines for Sort, Set in order, and Shine and then to actually follow those guidelines. Sustain is having the discipline and keeping the 5S processes going.

By implementing all of the 5S components, you have transformed your garage into a neat, orderly, and safe place. Everyone can find things quickly, and you can easily recognize when something is missing. This simple example reveals the power of 5S and the importance of using all of the 5S steps to move your Lean efforts forward.

5S Summary

1. **Sort:** Remove those items (unnecessary supplies, equipment, and junk) that you do not need to do the job. This will remove clutter, free up floor space, and aid in improving workspace efficiency.
2. **Set in order:** Have a place for everything and everything is kept in its place. Place items in proximity (point of use) to make the caregiver's job easier. Label and identify the exact location for equipment and supplies to make this easy to maintain.
3. **Shine:** Sorted and straightened areas are easier to keep clean. Shine, another word for “scrubbing and cleaning,” is important to everyone, not to mention making patients and their families feel they are entrusting their lives to an organization that values cleanliness.
4. **Standardize:** You must standardize regular maintenance and upkeep of the 5S process. It is essential to be deliberate in your ongoing efforts and to create guidelines for sort, set in order, and shine.
5. **Sustain:** The true value of the 5S process is to sustain your customer/patient and Joint Commission ready approach at all times. Use simple but effective audit processes to

accomplish this. Sustaining is the most important "S," and it requires the most discipline.

How to Begin Using Lean Tools

First, remember that no single Lean tool will be effective alone or sustain a Lean initiative. Lean is a problem-solving approach to eliminate waste and increase efficiency by creating flow and allowing pull along a service value stream, and thereby creating value for the patient. Simply cleaning up the workplace environment in isolation will not achieve the objectives of Lean Thinking.

Commitment and support for lean initiatives must come from top executive management, however, even more critical, from the "bottom up" for implementation. Decision-making and value stream improvements must be pushed down to the lowest levels of your organization.

Consultants are frequently engaged as Lean change agents rather than as facilitators and mentors. Your staff should be educated to lead and must be actively involved in any Lean implementation. The people best equipped to understand the work environment, issues, challenges, what will work, and what won't are the folks doing the work everyday. Empowering and educating your staff is essential to achieve sustainable and continuous daily improvement that ensures long-term success for Lean Thinking in your organization.

Look for and engage consultants who collaborate with you and present an implementation approach that educates, facilitates, and mentors you and your staff. Ultimately, the consultant should become an advisor to your organization, with your staff assuming

leadership and execution of the majority of your Lean implementation.

Your health care organization can leverage Lean Thinking and its tools to identify and eliminate waste and thereby increase efficiency with minimal cost and realize tremendous benefits.

About the Author

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