White Paper

Building a Lean/Six Sigma Healthcare organization – from the ground-up

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1.0 PATIENT AND PROCESS FLOW CONSIDERATIONS

Many issues are plaguing America's hospitals and long term care facilities today. Healthcare organizations are being forced to deal with a greater number of underinsured patients, bad debt and a reduction in elective surgeries. At the same time, escalating drug and material costs are squeezing operating margins. Although margins may be eroding due to lack of revenue and ballooning costs, an opportunity exists to restore and maintain those margins through increased staff productivity, process efficiency and the use of more effective cost management techniques.

These techniques come in the form of optimization tools that increase productivity, profitability and patient safety, and reduce non-value added tasks. Typically, these tools are based on two broad classes of optimization:

1. How can an organization reduce waste? (The Lean Approach)
2. How can an organization reduce performance variance in everyday tasks? (The Six Sigma Approach)

Reducing the Waste (The Lean Approach)

The Lean Approach is based on a concept developed by the automotive manufacturing industry in response to its ongoing struggle with thinning profit margins. In healthcare, the approach attempts to maximize patient value while reducing waste. In this view, the use of resources for tasks unrelated to the final goal (end product) is considered wasteful. These include both hard and soft costs such as:

- Time wasted through non-value added and non-standardized tasks
- Costs related to wasted materials
- Superfluous resources not adding value
- Quality issues that negatively impact patient care and patient safety

Every healthcare organization seeks to operate efficiently, deliver a high quality of care and increase patient safety - especially in these times of increased case complexity. While the final output, is often considered to be a measurement of success or failure for healthcare organizations, it is also important to evaluate the means by which organizations are achieving their ends. Cost savings realized through the elimination of wasteful processes can be reinvested in other areas deemed priorities for the organization. In turn, this reinvestment allows an organization to continue delivering the same high standard of service while creating an environment that facilitates organizational growth and further improvement. The Lean approach can often offer “quick wins” that rapidly generate improvements for the organization. At the same time, the introduction of Lean tools and methodologies can get people at all levels of the organization thinking about process improvement and the potential positive impact on the organization for the longer term.

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Reducing the Variation (The Six Sigma Approach)

The Six Sigma Approach is designed to reduce costs and increase patient outcomes by looking at different means to achieve the same end. This evaluation is done through statistical analysis and a reduction of variance in the processes. An example of this would be looking at Operating Room (OR) times required for various procedures. Why does one surgeon take 3 hours to complete a specific procedure while another takes only 2 hours? Does one surgeon have a bigger operating staff? Is one surgeon using methods that can be implemented as best practices?

In the above example, identifying statistical differences in surgery times enables a reduction in the variance in operating procedures and hence improves patient outcomes. Anomalies are reduced, key learnings and best practices are identified and shared, and changes are made to current processes, ultimately contributing to the bottom line.

As Six Sigma relies heavily on statistical analysis, it often leverages the use of advanced analytics. Advanced analytics involve tools that allow the organization to gain better insight into the data that is currently available and to project the impact of important operational decisions across the organization. Data mining, analysis, and modeling, along with process simulation, are just some of the tools that exist as part of advanced analytics.

While similar to The Lean Approach in that realized efficiencies offer organizations the ability to maximize the use of hospital funds, ensure resources are being used effectively and offer the potential to reinvest cost savings in other high priority areas, the Six Sigma Approach goes one step further. Where the Lean Approach promotes the reduction of waste, the Six Sigma Approach promotes the enhancement of operations. To reap the most benefits, organizations should consider both types of implementation as one strengthens and solidifies the operational foundation while the other enhances it.

The Enterprise Ventures Corporation (EVC) Solution

As the Managing Director of Healthcare Strategy with Enterprise Ventures Corporation (EVC), I have had the opportunity to work on numerous projects in all areas of management and healthcare delivery, to reduce waste, introduce efficiencies and realize hard savings. Despite all the obvious benefits this type of an implementation offers, organizations still ask why they should invest in this? Understandably, budgets are tight and with increased transparency undergoing a transformation within the organization that does not deliver immediate and substantial benefits can have stakeholder repercussions.

My response is simple and two-fold. First, look for solution providers who understand these parameters and the challenges you face internally in changing the environment and attitude among the team members. From fully comprehending the intricacies of your current operations to obtaining buy-in from executive leadership down to the staff, there is a complex array of issues that solution providers must be able to understand and overcome. At EVC, we offer prospective clients a three to five day exploratory exercise to
identify potential areas of savings – at no cost to you. At the end of the exploratory exercise we deliver an executive presentation and create an implementation proposal for our services that guarantees our fee. We believe in our methodology and in what we do – so much so that if our clients do not realize the benefit within the year, we refund the difference! We work with organizations to ensure they realize significant return on their investments.

The second point I make is that a number of healthcare organizations have already implemented Lean and/or Six Sigma and have reaped its numerous benefits in clinical, non-clinical and support areas. The percentage of healthcare organizations that have implemented these methodologies may be slim, but the industry has refined its processes based on the success of these early adopters. This, in turn, has put today’s organizations in a great position to benefit from previous lessons learned.

Proven Success

One of our most successful implementations was at a multi-site hospital serving over 700,000 patients annually with an operating budget of more than $400 million. The CEO realized that to maximize the services provided, funds and resources needed to be managed more efficiently. In the past, the organization struggled with increasing costs, longer wait times and what seemed like an insurmountable deficit. After conducting a Lean/Six Sigma project that created a roadmap and strategy for a hospital-wide rollout, the organization identified over $4 million in savings.

Another example was with a smaller hospital that decided to implement Lean/Six Sigma in their organization. They were faced with the challenges of not understanding the methodologies and not having the right resources to execute the project. We were brought in to help them educate their team on the concepts of Lean and Six Sigma. We jointly identified the operating rooms, and specifically the related supply chain, as a small manageable area to identify quick wins and generate momentum and excitement within the organization. This small exercise led to a cost savings of $400,000 annually and more importantly began to change mindset of the organization and its employees to one of constant self reflection and improvement using the Lean/Six Sigma toolset.

Pick up the Toolbox...

To draw on an analogy of an automobile that requires regular tune-ups and sometimes major repairs to keep it operating safely and efficiently, healthcare organizations also require regular maintenance. Just like a car, your hospital has to have to have the right mechanics with the right set of tools to keep your organization running smoothly. Let us use the tools that we have at our disposal to help tune-up your organization into one that is more efficient, offers increased patient safety and most importantly helps you restore operating margins.