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Improve Efficiency through Deployment of LEAN in CDM

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ABSTRACT
With growing pressure on service providers to reduce cost and improve quality of deliverables in shorter timelines, CDM organizations and professionals need to think out of the box to retain existing clients and win new clients. Traditionally LEAN techniques have been the stronghold of manufacturing, but in the last few decades they have been effectively used in the service industry, including healthcare. In CDM, LEAN has emerged as an impactful tool in improving process efficiency and reducing operational costs. It also allows professionals to engage with senior leadership in discussions around successful deployment of LEAN. The presentation will focus on the main LEAN principles, practices, tools and methodologies and a strategic approach for its successful deployment in CDM. It will focus on the key benefits that CDM can derive from LEAN techniques such as reducing waste, rework, redundancy in process, and providing deliverables with greater accuracy and shorter timeframes while also addressing challenges such as determining process/input/output metrics, end to end process streamline, longer wait/cycle times, resource utilization and measuring deliverables with less effort. This in turn will drive client delight.

Introduction

Lean Thinking is a highly evolved method of managing an organization to improve the productivity, efficiency and quality of its services. Japanese and American management specialists developed the ideas and methods over the second half of the last century. These management techniques have been applied both in the aerospace industry (Boeing) and in the auto sector (Toyota). In the manufacturing sector, the concept is sometimes referred to as World Class manufacturing or High Performance Manufacturing. Now a day's it's also observed the growing the application of Lean Techniques in CDM.

LEAN IS…a mindset, or way of thinking from an operations perspective…application of Lean cuts costs & inventories rapidly to free cash, which is critical in a slow economy. It also supports growth by improving productivity, reducing lead times, quality, and freeing huge amounts of resources.

What is Lean?

Lean is a customer-centric methodology focused on continuously identifying improvement opportunities by eliminating wasteful activities and creating value. In a Lean process, a customer is any individual or entity that benefits from the Lean. By focusing efforts on reducing wasteful activities, CDM can more efficiently attain CDM objectives and meet the customer expectation through metrics. Lean concentrates on typical seven wastes as described in Table 1. Attention to these seven high-level areas will better enable CDM to begin using Lean to more effectively identify potential causes of waste and address to improve the process.

Deployment of Lean in CDM:

Many CDM improvement groups have described Lean as a critical methodology for CDM providers to adopt. The Institute for Healthcare Improvement (IHI) states that there is growing agreement "among CDM leaders that Lean principles can reduce the waste that is pervasive in the U.S. healthcare system...Adoption of Lean management strategies - while not a simple task - can help CDM improve process outcomes, reduce cost, increase satisfaction amongst clients, service providers and internal staff (Miller, D., et. al., 2005, p.3)."

Table 1: Seven wastes in CDM addressed in Lean

Type of Waste	Examples
Excessive motion	1. Searching for information in multiple locations
Excessive processing	1. Excessive processing flow 2. Fragmented workflow
Waiting	1. Waiting for paper work 2. Waiting for response/approvals
Excessive production	1. Planning entire when needed in batches 2. Providing more fields in reports than requested
Defects	1. Errors in deliverables
Unnecessary handoffs	1. Verification loops 2. Unnecessary approvals
Inventory	1. Backlog of checks

The survey conducted by the American Society for Quality (ASQ), disclosed that only 2 percent of CDM organizations have full deployed Lean. However, 53% of organizations responding reported some level of use of Lean in their CDMs. So, why the full deployment of Lean within CDM is low?
According to ASQ respondents, the key reasons are:
1. Lack of quality resources
2. Inadequate information available about Lean Tools and Technologies
3. Lack of buy-in from leadership

Studies over many years have shown Lean to have a wide range of applications to CDMs ranging from:
1. Reducing complexity in the processes
2. Improving quality and financial efficiency
3. Reducing the cost of temporary staff

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4. Introducing and start measuring the metrics
5. Reaching to better strategic decisions affecting marketing and capacity/resource management

Deployment Approach:

The approach suggested has four key stages of Lean Deployment in CDM organizations as depicted in Figure 1, each stage is described in detail to help understand the deployment in CDM.

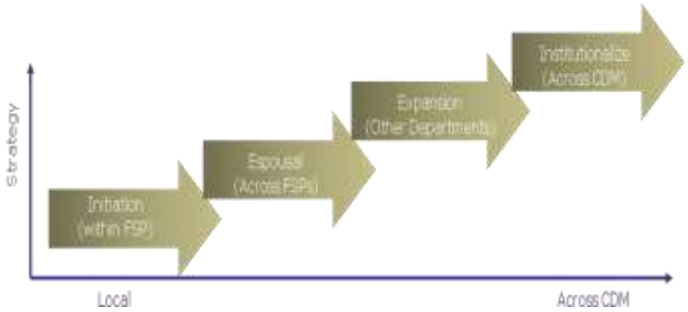

Figure 1: Deployment Approach of Lean in CDM

Stage 1 – Initiation:

During the initiation it's very important to create a vision and supporting objects to begin Lean deployment. This will allow leadership to set expectations for the program. This is important because, Lean program should focus on quick, visible improvements that reduce waste, improve efficiency and effectiveness within a single FSP. Broader objectives that are more challenging should be targeted in the later stages of the Lean Program. These more difficult objectives usually require cross-functional or FSPs coordination. Below steps to be followed during initiation:

1. Define CDM roles and responsibilities - In the initiation stage, an interim Lean Program Champion should be appointed by senior leadership. The interim Lean Program Champion is usually at the Director level within the organization and understands both the importance and the temporary nature of the role. Based on a clearly written business case for the Lean Program, the interim Lean Program Champion then defines roles and responsibilities to allow senior leadership to identify which resources are needed, for how long, and with what required capabilities/competencies.
2. Identify, select and prioritize projects and resources
3. Establish contact and good communication & governance model

There are generally two primary internal drivers of Lean Program deployment in CDM:

1. A fundamental need to demonstrate improved operational or financial results
2. A desire to exploit advantages of strategic events, including:

a. Information technology (IT) implementation
b. Formation of an integrated care organization
c. New facility build-out

In these situations, change is significant and CDM should take the opportunity to develop the internal support to introduce new ways of working and addressing challenges.

Stage 2 – Espousal:

With FSP level financial and operational benefits realized in initiation stage, senior leadership efforts can be expanded to broaden the implementation of Lean Program. As part of this espousal, solidifying senior level buy-in and ownership of the Lean Program is essential. As Lean Program expands across FSPs, project execution and success require changes that may at first be perceived as negative by individuals or groups involved. These matters can be quickly resolved through further education, communication and guidance from senior leadership.

In order for a Lean Program to be successful, senior leaders need to support and buy-in to the idea that Lean can benefit across FSPs. Accordingly, senior level support and ownership of a Lean Program is a prerequisite in achieving Lean operational and financial gains by educating senior leadership at executive level on lean concepts and how these concepts support across FSPs. Then Lean program vision and expectations can be thoroughly discussed, set and assign the program champion. This individual should be a senior, interested in fostering the change. Lean Program Champion works with other senior leaders, employees and is principally responsible for the below:

1. Continued refinement of Lean Program vision and objectives as the program matures. Original vision and objectives may need to be revised and aligned with FSPs vision and objectives.
2. Guide in identification, selection and prioritization of Lean projects that align with FSP strategic objectives as did in the initiation stage (using FSP metrics)
3. Support and leverage across FSPs IT
4. Support developments and change to enhance employees across FSPs understanding by creating Lean posters and boards to reinforce messaging

Stage 3 – Expansion:

In this stage opportunities for improvements begin to extend beyond FSPs of CDM reaching vendor/clients, to continue the effort to reduce the CDMs waste as part of this next level of Lean Program maturity using the following guidelines:

1. Bring shared, strategic vision and objectives – as the CDM moves towards expansion stage the strategic vision and objectives must be broadened to encompass vendor/clients and how they help further expansion of capabilities in reducing waste and improving quality.
2. Conduct vendor/client level opportunity assessment – to support the expansion of improvement opportunities, it is beneficial to conduct the assessment on vendor/client processes. This can help identification of potential projects and also seek the involvement of resources from client on the projects.
3. Introduce vendor/client governance structure – as result of success of involving vendor/client in the expansion stage, it is necessary to develop a permanent Lean governance model to play the key roles going forward.
4. Implement vendor/client supporting IT systems – as IT continuing the critical component as the CDMs lean program matures. By reviewing the critical requirements and determining gaps between "As-Is" and "To-Be" states, the IT department designs and leads the building of capabilities.

Stage 4 – Institutionalize:

The last stage of Lean maturity is institutionalize, it requires a whole CDM to fully embrace the principles of waste reduction. Once this stage is reached, CDM should be structured to continuously identify, select, prioritize and eventually implement improvements that eliminate waste and improve quality and outcomes for the CDMs clients. To accomplish this level of maturity, CDM organizations need to:

1. Standardizing the IT infrastructure – as activities continue to expand, IT department must focus on simplifying the IT architecture and applications both internally and client side.
2. Proper communication of Lean concepts – as this stage is developed across FSPs in whole CDM, start communicating through best practices. Also educate the new CDM members.

To achieve all the above it is very important to have the **METRICS** (**M**easure, **E**verything, **T**hat, **R**esults, **I**n, **C**ustomer, **S**atisfaction) well defined, measured and assigned to individuals who are held responsible and many CDMs are not followed. As

a result, Lean programs risk incurring more costs, falling short in meeting the results and finally Lean program fails. To mitigate these risks and increasing the success of Lean, it is important certain guidelines to be followed. This includes:

1. Defining what should be measured and making sure they are clearly defined, not easy to manipulate and reliable.
2. Educate users how to manage and analyze metrics, scoping improvement of metrics, prioritizing and assigning appropriate resources to improve.
3. Establish a baseline for each metric and set realistic goals helps identify gaps in performance.
4. Establishing the accountability and ownership of metrics systems across CDM.

To have a successful Lean journey, discard old measures that encourage the sub-optimization behavior and replace them with good Lean measures that drive full value to customer.

Conclusion:

Lean is a proven methodology that answers most frequently asked question of the day – how a CDM is going to be able to do more with fewer resources, reduced errors with high customer satisfaction. It is, therefore, important for CDM to be Lean Ready with a formal Lean infrastructure that can respond to the internal and external challenges coming each and every day. This includes a Lean infrastructure responsible for overseeing the continuous search for and identification of Lean Projects that will result in operational and financial gains. CDM will be able to encompass a Lean approach in all strategic initiatives to actualize the maximum benefits from major expenditures. It will be better able to push the CDMs strategic plan seamlessly through each and every FSP and measure the results with a metrics system in which every manager understands the connection between their actions and the achievement of the CDMs strategic objectives.

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