Critical Lessons Learned in Healthcare IT

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Overview

Very large multi-application, multi-facility healthcare Information Technology (IT) projects often overwhelm the resources and time constraints of even the most well-structured and prepared field staff members, IT organizations and project teams. Many healthcare organizations are continually drinking from the proverbial fire hose of organizational change. When these organizations do not account for the unique characteristics of very large IT projects on their staff, processes, project teams and contractors, it can lead down a difficult and bumpy road. Healthcare organizations can take advantage of well-devised Quality Management Systems, and cross-organizational change management governance structures, which provide for integrated yet flexible processes, centralized management, judicious project staffing, unified communication strategies, and strict executive management oversight of these types of projects to maximize success outcomes and improve efficiency. While many healthcare organizations have superb quality systems for patient care, often IT and back office activities are lacking. It is important that healthcare IT is integrated into the enterprise level Quality Management Systems.

Quality Management Systems

In healthcare, well-devised Quality Management Systems are critical to becoming a learning organization. Without them, the continual improvement loop is missing. Continual improvement loops focus on identifying lessons learned, incorporating them into everyday processes, and not playing the "blame game." A key aspect of quality management systems is documenting processes. Without documented processes, lessons learned cannot be incorporated in standardized processes throughout the organization. Lessons learned are lost, and the efforts collecting them are wasted. Each project team then needs to relearn the discovered lessons learned from past projects because action was not taken to update to existing documented procedures to incorporate the learned lessons.

In many cases, large healthcare organizations do not have enterprise-wide Quality Management Systems. This approach fails to take advantage of standardization and organization-wide learning. Each project or organizational unit must design their own procedures or flounder as staff members and contractors come to the table with their preconceived notions of what is expected of them, and go off in different directions implementing what they have done in the past. This wastes valuable time as the project team tries to come to consensus. While innovation is critical for leading organizations, unstructured innovation at the project level slows robust and rapid startup of project teams. On the other hand, over-standardization can create its own inefficiencies in very large organizations where business

divisions are managing very different products. In these types of environments both innovation and over-standardization must be tempered in order for the project to succeed.

It is much more judicious to organizational project success and efficiency to have standardized procedures that new team members can be trained on at the start of a project. Staff members that have been team members on other projects bring this organizational knowledge to the project team, while outside contractors and new project team members can be trained and mentored by organizational veterans. Such enterprise-wide standardized procedures can significantly jump-start a project, and quickly get it into high-gear.

For example, an IT project team may need to develop a defect management plan that describes who should be involved, how found defects during software testing are reported, how this information is communicated to and analyzed by appropriate team members, and how metrics are kept and disseminated. If this process is already documented prior to project initiation with some of the team members having experience in the enterprise defect management process, getting the entire team on the same page is minimized. Learning the lessons in execution and lack of unified communication of defect management based on a faulty project level defect management planning during project execution is a prescription for failure, wasted resources, and impacted timelines.

The difficulties of large healthcare IT programs that have strict deadlines and strain the capacity of the organization to assimilate the change are exacerbated by the inefficiencies of not having the required processes in place prior to project initiation. These programs endure even more chaotic results than more typically-sized IT projects. Organizations with mature Quality Management Systems, where lessons learned have been fed back to continually improve their standardized yet flexible processes, can accelerate large IT program execution and with significantly improved project outcomes. The flexibility results from designing processes that can be used effectively under a variety of organizational scenarios and project sizes.

Centrally Owned and Enterprise-Wide Processes

The following are a few examples of generic Quality Systems procedures:

- Document Control
- Records Management
- Corrective Action
- Preventive Action
- Training
- Management Review
- Change Management and Governance

The following are a few examples of IT project specific procedures and tools:

- Defect Management
- Usability
- Requirements development
- Functionality testing
- Communication tools and requirements
- Dependencies analysis
- Business case analysis tools
- Charter format and requirements
- Resource management and roles tools
- Cross-project stakeholder report needs analysis
- Team real-time reporting access and report generation redundancy minimization
- Tester management; leadership oversight of resource allocation
- Multi-site testing and implementation processes; resource prioritization and oversight
- Testing budget standards
- Flexible, but delineated tiered testing regimes based on size and scope of the IT project
- Risk Management
- Software Quality Assurance processes
- Validation processes
- Selection of scheduling, estimating and scope management tools
- Project reporting standards and oversight structures
- Scorecards, dashboards, and metrics analysis
- Branded status emails

Enterprise-Wide Change Management and Governance Systems

Staff members rarely perceive change as pleasant. It is human nature to enjoy and hold on to the status quo. However, change is even less pleasant when staff members are drinking from a fire hose of change. Too many change initiatives executing simultaneously with poor leadership oversight result in:

1. Staff members are unsure of priorities
2. Reduced effectiveness of implementations and training
3. Perpetuating a "hair on fire" mentality
4. Stretching resources to the breaking point
5. Forcing staff to look for short cuts, often leading to missed steps and loss of quality
6. Wasted resources and time as different organizational units address the same issues with different projects and tools
7. Missed requirements for an enterprise –wide solution due to narrow organizational focus

8. Poor cross-organizational communication and unified alignment
9. Lack of adequate project prioritization and resource allocation

To alleviate these issues healthcare organizations need centralized enterprise-wide change management and governance systems. The organizational unit given authority over these systems not only has to select the right project at the right time for the organization; they must also assess the organization's ability to assimilate the prioritized changes. Most importantly they must have the authority and the political clout to say no to projects that are important to the organization and to stakeholders, but do not have sufficient priority based on competing organizational change needs and the ability of the organization to assimilate the changes on the agreed to priority list.

Large healthcare IT programs are substantial resource and time commitment sinks. If they are to be successful, they need to be given the priority and resources needed to succeed. Often time, these programs are a regulatory mandate with specified deadlines. They must be completed, and completed on time. Other organizational projects that may be of high strategic value may need to be delayed while resources are reallocated to the required program. Without enterprise-wide change management and governance systems, these kinds of decision-making and enforcement are impossible. This puts the entire organization at risk, and increases the ineffectiveness of all the changes in the pipeline.

Change management governance also needs to be extended to field operations. The ability of the field units to absorb change is not only impacted by centrally managed enterprise level projects, but to the amount of local activity as well. The amount of local activity can vary wildly across large organizations. It is incumbent on change management governance bodies to understand what the impact of centrally managed enterprise level projects in the pipeline will have on field locations, and address their ability to assimilate the change through pipeline management and local project oversight.

Matured enterprise-wide change management and governance systems are adept at ensuring project pipelines are well controlled, preventing overtaxing of the organization's ability to change, and improving project success outcomes, resource allocation and timelines. They improve the structure of a learning organization by incorporating lessons learned across projects and the organization based on feedback on how better to manage change and meeting their organizational stakeholder needs.

Conclusion

It is important for healthcare organizations to take advantage of enterprise level quality and change management systems to maximize efficiencies and organizational success, especially when related to health IT initiatives. Without these systems, valuable lessons learned are lost because even though they are identified, the lessons are never really incorporated into organizational processes or culture. In addition, overtaxed staff cannot effectively implement the vast amount of changes they are being required to assimilate on a day-to-day basis. Help your organization learn its lessons and your staff to succeed by using enterprise quality and change management systems as improvement tools that will take your healthcare organizational performance to the next level.

Useful References

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About the Author

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Dr. Barton is a Program Manager and Business Process Improvement Senior Analyst, at Whitney Bradley and Brown (WBB) Consulting. Dr. Barton is a senior leader pertaining to Quality Management, Quality Assurance, Quality Systems, Document Management, Records Management and business IT solutions. Currently, he is supporting the Veterans Health Administration (VHA)—the largest integrated healthcare system in the U.S. with a budget of $53 billion—on their ICD-10 initiative.

Dr. Barton has over 30 years of Quality Assurance and Improvement experience spanning industry, government, biotechnology, and healthcare domains. He has held senior and executive quality assurance positions for over 20 years in FDA regulated industry.

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