

# Showing “What Right Looks Like”—How to Improve Performance through a Paradigm Shift around Implementation Thinking

Donna James; Steve Hess; Jacob E. Kretzing, Jr., MBA; and Mark E. Stabile, JD, PMP

## ABSTRACT

*During a three-year period, Christiana Care has observed significant and sustained improvements in technology-enabled project outcomes. Just in the patient throughput area, Christiana Care has seen an 11 percent reduction in length of stay in the emergency department (ED), a 23 percent reduction in patients leaving ED without treatment and a 28 percent reduction in bed-clean turnaround time, all while accommodating patient volume increases of 7 percent. This performance is directly related to a broader view of implementation embraced by the organization. By looking at more than just traditional project management, Christiana Care has shifted their implementation paradigm, focusing on benefits planning, user adoption, value realization and goal delivery within the portfolio. This has been a result of a journey that has included a subtle but deliberate introduction of the new implementation thinking, primarily marked by an experience-driven approach of demonstrating the benefits of good implementation practices. Christiana Care has created the environment and process to get the greatest value for its IT-related investments and to show “what right looks like.”*

## KEYWORDS

■ Implementation ■ Project management ■ Portfolio management ■ Change management

It was May 16, 2005, and the bed management project reached a critical juncture. The project team had encountered a showstopper issue and had to present a recommended course of action to the project steering committee.

The bed management system, as designed, would not meet future state process requirements. The system could be implemented on top of current state process by the target go-live date of June 30, 2005, but to get to the expected

future state benefits, the software had to be re-architected, and the team would miss the published go-live date.

“The decision was easy,” said Gary Ferguson, executive vice president and chief operating officer of Christiana Care Health System. “Even though implementing the bed management system by June 30 was an organizational and management goal, the project team clearly showed how the benefits we were hoping to achieve would not be delivered. We agreed to accept the recommendation to delay the implementation, our IT team worked with the vendor to reconfigure the system, and we implemented successfully less than four months later. We are now achieving outcomes for bed turnaround that exceed national standards.”

In the past, this decision—and the process to get to this decision—would not have been so easy. Most likely, the system would have implemented the system to meet the go-live date, and Christiana Care probably would not have received the greatest value out of the implementation. Or it would not have done enough of the process and planning work to understand the full potential benefits that could be attained.

Christiana Care has experienced a true paradigm shift in its perspective of implementation. It has embraced a broader view of implementation that combines process improvement, project management, portfolio management, organizational change management and risk management. These disciplines, when integrated into project thinking, enabled the system to plan for and achieve maximum benefit realization. However, it did not happen overnight.

### **The Impetus for Change**

Based in Wilmington, Delaware, Christiana Care Health System is one of the largest healthcare providers in the Mid-Atlantic region, serving all of Delaware and portions of seven counties bordering the state in Pennsylvania, Maryland and New Jersey. The not-for-profit, privately owned Christiana Care family of services includes two hospitals—Christiana Hospital, on a suburban campus south of Wilmington, and Wilmington Hospital, in the downtown business district of the city. Christiana Care has nearly 1,100 licensed hospital beds, a major regional center for heart and vascular health, and the only Level I trauma service on the East Coast corridor between Philadelphia and Baltimore.

In early 2004, a lot of change was occurring at Christiana Care. Within the previous eight months, there had been changes at the CEO, COO and CIO levels. With new leadership came new strategy and an appetite for change. The new leadership team saw the need to accelerate performance improvement initiatives and targeted five strategic focus areas—improving patient safety, clinical excellence, patient satisfaction, physician and employee engagement, and financial strength.

While Christiana Care’s performance was good in all of these areas, greatness was the goal. The IT department was

no different. The IT application and technical infrastructure was sound; however, with many systems and good connectivity, the organization was not using the systems, data and information to its ultimate potential effectiveness. While customer satisfaction with the IT department was high and the service orientation of the department was strong, the focus and ability to deliver on projects was not where it needed to be. The IT department and infrastructure supported the organization, but it did not enable the organization. The new leadership of the health system was looking to change that.

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“Both quality initiatives and financial conditions will continue to exert pressure on hospitals to improve processes, be more efficient and be more nimble. What we wanted to do with information technology projects was to take a look at how we are doing things, how we should be or need to be doing things, and use the technology-related projects to get us to where we needed to be,” Ferguson said. “In the past, we probably implemented a lot of systems and software on top of existing processes. We needed to change that. We looked to the technology-related projects to drive the change and enable the change across the organization.”

### **The Structure for Success**

The approach was to have the technology-related projects play a greater role in enabling change and improvements. Software and systems no longer would be implemented on top of existing inefficient work flows. Instead, work flows and processes would be analyzed to identify opportunities for improvements. Project teams would be expected to understand the potential clinical and business value to create achievable and sustainable solutions. Projects also would need to be well planned, executed smoothly and evaluated to ensure actual benefits matched expected benefits. These changes would enable the healthcare system to be more efficient, deliver better quality of care and make everyone’s job easier.

But in 2003, the IT department was not positioned to deliver successfully. The department would set go-live dates before the appropriate level of planning was done, and it subsequently missed the dates. It would manage scope and

risk inconsistently and encounter project surprises. The IT department did not always do the appropriate levels of business process analysis, or it only focused on current state and therefore did not understand, and missed opportunities for future state benefits. Its success was a result of individual heroics rather than collective focus and structure.

While the department was aware of these shortcomings, it is hard to change the culture, focus, skills, maturity and other organizational dynamics in a single day, or even in a single year. This included introducing traditional improvements in project management maturity (see OPM3), but that was not the focus. The strategy deployed was to introduce different ways of thinking, different roles into the environment, different ways of working and different ways of watching performance. The idea was to continue to build on

*“...the IT department focused on introducing project and portfolio management processes as a natural part of the project work it was initiating.”*

a solid, sustainable foundation rather than trying to introduce and implement an overwhelming amount of change at once. This approach has been used during the past three years, and it is continuing to be built upon.

In 2004, the department spent significant time assessing the environment and creating a foundation for future improvements. Before it could determine where it needed to go, the department had to better understand where it was. The assessing phase included conducting an assessment of the current state project management process using a generalized capability maturity model; identifying and assessing other integral processes related to organizational change management and resource management; assessing the readiness of the IT department and the overall organization for the change required; and developing courses of action to move the organization forward, including developing a standardized project management methodology.

The assessment and findings led to specific activity to initiate the change. The IT department established a project management office led by an experienced leader with an organizational dynamics background, not a certified project management professional. It also defined internal oversight criteria for projects—managed, guided and monitored—for projects based on their complexity and value. Projects were managed by resources in the project management office; guided projects received oversight and mentoring from the project management office leader; and monitored projects received minimal oversight.

The department created a foundation of project management capability to reduce the risk associated with the process of project management. For example, it used existing vacancies to hire experienced project managers; developed methods and templates within a standardized project management methodology; developed project management and methodology training; and developed a project management Web site as the central repository for project management methods, tools and lessons learned.

Christiana Care saw year one as a critical stage of the transformation. This is the year the IT department and the organization would and should begin seeing a change, although probably a subtle one. It was also the year with the greatest risk of failure. Many process improvements die or lose momentum before any value is attained.

Thus, those seeking the change took a risk. Instead of standing in front of the organization and stating, “Here is what we are going to do,” and showing diagrams, organizational charts and other pictures and words, the IT team wanted to use a visible project to begin changing the environment. In essence, it wanted to “show what right looks like” instead of just talking about what right should look like.

The project selected was an emergency department tracking system implementation. The Christiana Care emergency department, like many others, is a complex and sometimes chaotic environment, providing care for more than 138,000 emergency visits each year. With many staff members, many patients and many pieces of equipment constantly moving around a large physical area, the ability to track where everyone and everything is at any given time is not a simple task. The department needed a passive tracking tool that would enable efficiency and not add yet another burden to the staff.

This project had many of the variables that would help to demonstrate the shift in implementation thinking. It had visibility within the organization; departmental-level scope with enterprise-level implications and benefits; potential impact for measurable outcomes; engaged business and clinical leadership; known technical solution in the marketplace; and a complex process with known current state gaps.

“Often, we would not know where a patient was,” said Linda Laskowski-Jones, vice president of trauma, emergency and aeromedical services. “The patient may have been taken to radiology, but the front desk was unaware of that. We desperately needed something that would help us manage patient flow and patient care flow better. We knew the technology could help us, but we also knew that this was an operations issue, and we needed help to change the way we worked.”

To pursue this opportunity, the IT department organized teams differently, defined and refined roles (both IT and organizationally), put more emphasis on the upfront process

work, did the appropriate level of planning before setting the go-live date, managed the scope with the appropriate governance and communicated project status in a new standardized way. More importantly, the project team ensured the clinical staff of nurses and physicians participated in the process-design and problem-solving meetings, and ensured the clinical leaders were there every step of the way, providing vision, support and barrier resolution. Although individuals were playing vastly different roles than they ever played previously, they could see their role had value and their input was being heard, and the results of these efforts were evident.

The IT department not only delivered a successful project on time and budget, but it developed a new process for the emergency department to care for patients. Shortly after go-live, the department was experiencing positive outcomes directly attributed to the implementation. For example, the average length of stay in the emergency department for admitted patients was reduced by 36 minutes, an 11 percent reduction; the average length of stay in the department for treated and released patients was reduced by 14 minutes, or 5 percent; the percentage of patients who left without treatment was reduced by 24 percent; and there was a statistically significant improvement in wait times and overall patient satisfaction.

The effort also provided a picture of the new way of implementing systems at Christiana Care.

“We embraced the technology and system because we saw how it could help us manage a chaotic ED environment. But, what we did differently with this project was embrace the necessary business process changes prior to the technology implementation,” Laskowski-Jones said. “The IT department and their implementation approach helped us position the initiative for mutual accountability and ultimate success. The new approach engaged our department in the project differently than we had ever experienced before—we were all involved in building a solution, not just implementing a system. I never want to take on another IT-related ED project without following the same process.”

### **Defining the Implementation Framework**

This created the impetus to build on the year one foundation. In year two, a more formal IT framework and structure was created to help capture work, resource requirements and focus. The IT department made changes to people, processes and tools within what was called its Defining Phase.

In this phase, the department focused on building a shared understanding of the separation of work (projects versus production support), work priorities and roles. It defined resource roles and allocated staff assignments based on those roles. It also created a leader’s analysis method to bridge the gap between organizational goals and project success, with the intent of engaging sponsorship early in the

process to provide clear guidance to the project team.

As part of the defining phase, cross-team planning meetings within the IT department were introduced to expand the participation of formal and informal leaders in the fiscal year planning process. Extended leadership meetings were established to highlight progress and create accountability for team and project leaders in reporting status against departmental goals. The organization used existing vacancies to hire additional project managers, and it created a portfolio database tool to capture project work and key information related to project progress.

Continuing the philosophy of showing the changes rather than talking about the changes, the IT department focused on introducing project and portfolio management processes as a natural part of the project work it was initiating.

To accomplish the experience-driven change approach, the IT department used a clinical system upgrade project to begin introducing the new implementation thinking to a broader audience. The project involved a major upgrade of core clinical systems and electronic medical records, and it had many of the attributes sought in a demonstration project—visibility within the organization, enterprise-level implications and benefits, broad reach into the IT organization, involving many IT staff members and leaders, and known vendor and vendor relationships.

The purpose of the upgrade project was to begin introducing new implementation paradigms to the greatest audience possible, within both IT and the organization; create a better vendor management structure with the core clinical vendor; drive functional benefit to the business; and set the stage for a more complex clinical project. In the past, this would have been strictly viewed as an “IT project.” Instead, the IT department had departmental leaders from nursing, pharmacy and surgical scheduling involved in defining success around current operational and system issues.

All goals were achieved, including rectifying 68 percent of the outstanding issues from the previous software version, providing end users with greater functionality and introducing a more refined structure for vendor management. The project also met the goal of exposing the project team structure and roles to a broader audience, within both IT and the healthcare system. The upgrade project was used to raise the comfort level of those involved in clinical system implementations. This experience set the stage for a much larger and more complex clinical initiative to implement the electronic medications administration record and bar coding at the point of care the following year.

### **Simplifying Complexity**

The new way of working, while not perfect, was delivering focus and results effectively. With a more formal framework in place, the IT department began having integration discussions, pulling projects, processes and infor-

mation architectures together. More than ever before, many IT leaders had to reach out into the clinical and business areas to understand the environment and set the context for priority discussions and decisions.

Year three was called the Learning Phase. It included:

- Engaging senior organizational leadership with more formal roles and expectations, more than ever before, through IT steering committees with a focus on using steers for business driver, project success guidance, escalation resolutions and resource assignments.
- Directly linking organizational and departmental goals to IT focus and goals.
- Introducing staff planning, including the assessment of level-of-skill proficiency for specific roles, and identifying conflicts and gaps as development and augmentation opportunities.
- Identifying and discussing integration points between projects, including dependencies and prerequisites, linking projects to programs within the portfolio.
- Focusing on planning and go-live milestones within the portfolio process and creating the accountability to meet expectations.
- Introducing a project complexity model to guide scalability and use of the project management methods and tools, recognizing not all projects are equal, and certain projects require more oversight and focus than others.
- Instituting biweekly portfolio review meetings to provide active portfolio oversight and to create a shared understanding of projects, issues and focus areas.
- Utilizing priorities to determine resource conflict resolutions.
- Creating a formal process for introducing new work into the portfolio.
- Implementing a formal production change management process for introducing changes into production.
- Modifying the portfolio database tool and process, moving it away from a project management status tool to a true higher-level portfolio tool.

With previous successes to learn from and lean on, the new way of implementing systems was becoming more the norm than the exception. One of the focuses of the organization was to improve patient throughput, including reducing the length of stay. This not only helps improve financial strength but it also increases patient safety and clinical excellence, creating the capacity for the healthcare system to function more efficiently.

"If we can reduce our length of stay by two-tenths of a day, it equates to a 40-bed unit," said Ferguson, COO, Christiana Care.

With the new implementation paradigm as a framework, Christiana Care initiated a bed management project. After doing the current state-future state process work, the organization laid out a framework for a multi-faceted, multi-phased approach. The first phase involved bed turnover,

which means cleaning beds as efficiently and effectively as possible to enable the next patient to be admitted in a timely manner.

The existing process for turning around beds was fairly reactive, with staff cleaning beds when the next patient was ready to be placed. It also did not allow time for environmental service assistants to be dispatched to hospital areas that had high demand. If three beds were lined up to be cleaned in one unit, the service assistant assigned to the unit would clean them all, one at a time, creating delays with bed placements.

The organization needed a new way of processing cleaning requests, distributing the workload appropriately and providing service-level accountability to the organization. While all the process changes were defined and with the environmental system organizational structure changes made, the system was implemented successfully, but not on time.

This is where the learning has come in. Conducting the current state-future state process work, mapping to organizational goals and really understanding the fundamental changes that were necessary to drive maximum success became the basis for the technical solution. While, this may appear to be a basic requirements definition, this fundamental understanding was extended to the entire team.

During unit testing, the project team recognized a failure point and that the system needed to be reconfigured to attain operationally defined success. Because the organization had started to adjust its definition of success and shifted its implementation approach and thinking, it was able to involve appropriate stakeholders and make the right decision for the organization to delay the project, re-architect the system, enabling it to implement it with a much greater chance of success.

The results were and continue to be remarkable. "We are turning around beds in about 32 minutes, while industry standards are in the 50-minute range," said Rick Olivere, director of environmental services, Christiana Care. "The overnight shift used to average 40 to 50 beds cleaned each night; now, they are down to six. This is a result of less bed cleans being carried over from shift to shift. These dramatic outcomes are a result of making significant changes to our process and work flow, and we used the project implementation to introduce those changes."

In addition to turning around beds more quickly, the process for requesting beds to be cleaned is more automated, and the status of bed requests are more visible to everyone in the hospital. This efficiency gain was not lost on the nursing team.

"Our recent technology-related implementations have really been collaborative efforts between nursing, IT and other service departments. The focus on nursing efficiency is understood by all and is really driving benefit to the hospital," said Diane Talarek, senior vice president of patient

Dimension	Metric
Goal Delivery	<ul style="list-style-type: none"> <li>• Success in hitting our plan date (i.e., plan date is when project plan is finalized and approved by all appropriate parties)</li> <li>• Success in hitting go-live date (i.e., go-live date set when project plan was finalized and approved)</li> <li>• Success in delivering defined scope of project</li> </ul>
Quality	<ul style="list-style-type: none"> <li>• Business Alignment and Benefits (business drivers identified, business requirements documented, metrics defined and included in project deliverables, value delivered)</li> <li>• Planning Activity (scope defined, stakeholder and risk assessment conducted, control processes defined, plan/schedule review and approvals completed)</li> <li>• Control Activity (Scope Management, Schedule Management, Risk Management, Vendor Management, Issues and Actions Management)</li> <li>• Communication Planning and Execution</li> <li>• Go-Live Execution</li> <li>• Close-out Activity (hand-over to production for IT and the business, Lessons Learned)</li> </ul>
Acceptance	<ul style="list-style-type: none"> <li>• Project Governance</li> <li>• Project Roles and Responsibilities</li> <li>• Escalation Process</li> <li>• Project Leadership</li> </ul>

**Table 1. Measuring Project Delivery.**

care services and chief nursing officer. “When the nurses are on the phone calling for beds and trying to track down housekeepers, they can’t be with the patient. This is not about the IT department pushing systems on us; this is about looking at the patient-care work flow and using system implementations to help nurses do what they do best—take care of patients.”

**Continuing the Paradigm Shift**

Now, in year four, a sustainable structure and process for planning and executing the IT project portfolio has been created, but it continues to grow and mature in how the portfolio is managed. The current phase is called the Managing Phase. It involved:

- Introducing goals for each enterprise and department level project.
- Aligning all goals to Christiana Care’s annual operating plan and ensuring goals are measurable.
- Shifting accountability for planning to directors and their teams.
- Introducing change-control process for goal changes and approvals.
- Conducting portfolio risk assessment and developing a risk-management plan for portfolio.
- Identifying key integration areas related to process, application, platform and developed formal integration activities.

- Instituting organizational structure changes to better align people to roles that leverage their skills and provide focus and clarity for work deliverables.
- Increasingly using the project management Web site for project information management.
- Creating a project phase duration tool to provide better estimates to guide project planning.
- Formally communicating expectations for early escalation of issues.

One of the most significant changes introduced this year is how overall project success is measured. In years one through three, the organization had focused on schedule, budget and benefit, but in year four, it has introduced more qualitative measures to go with traditional quantifiable ones. Moving forward, it is measuring project success across three dimensions—goal delivery, quality and acceptance (See Table 1).

Each project will be measured against the three areas, with the quality and acceptance measures being scored using surveys. The new measurement tool provides a magnifying glass into implementation delivery performance, enabling the organization to continue to focus on the areas that need attention, and enabling the organization to continue to build on its success.

Future years and phases are expected to optimize the processes and structures that have been created. Initially,

<b>Year 4</b>	<b>MANAGING:</b> Year 3 + Set realistic cascading enterprise and departmental goals with specific deliverables; Deliberate integration and risk management discussions within portfolio; Formalized escalation rules; Redefined project success beyond traditional schedule, budget, and benefit metrics.
<b>Year 3</b>	<b>LEARNING:</b> Year 2 + Set context of IT work within organizational strategies and goals; Introduced integration discussions to provide linkages between projects; Instituted bi-weekly portfolio review meetings to ensure IT leadership alignment; Focused on setting/meeting expectations and rational staffing plans; Used an enterprise-wide patient throughput initiative to link IT focus and process improvement to organizational value.
<b>Year 2</b>	<b>DEFINING:</b> Year 1 + Defined work types (projects vs. operational work), roles, and accountabilities; Implemented portfolio database to track project and project status; Focused on prioritization of projects; Used an enterprise-wide clinical system upgrade to expose more individuals to new implementation thinking.
<b>Year 1</b>	<b>ASSESSING:</b> Assessed IT department capabilities and readiness for change; Implemented project management office (PMO), methodologies, training, and oversight mechanisms; Used a departmental, but visible project to introduce new process focus, roles, governance, and methodology.

**Table 2. Building upon Success.**

that will involve spreading awareness and participation in the implementation methodology into operational departments. This will mean reinforcing the value of alignment between IT projects and operational goals, as well as enabling departments to experience the benefits of increased leadership and participation in projects.

Enabling the organization will continue to involve a combination of structural project methods, excellence in project delivery and organizational change management. For instance, the IT department has embarked on an enterprise architecture project that will help make architecture and integration discussions and decisions more efficient. By improving the communication with departments regarding technology, IT can team with operations to deliver better value.

One important element will be to continue to raise the level of knowledge of the IT team, not only about standard industry methodologies and approaches, but also about business and clinical processes. The roles of individuals involved in IT projects will continue to be fine-tuned, not only within IT, but within the business and clinical areas as well. The department also will continue to put portfolio management tools, communication tools and leadership and staff structures in place to provide the oversight and management needed to ensure progress is being made in the most efficient manner possible. All together, these tactics and continuous improvement of the processes and structures enabling implementation will optimize the ability of IT to deliver high value to the healthcare system.

All the changes made to the people, processes and tools in the past three years have become a fairly natural part of

the way business is done. The level of thinking, the integration of discussions across projects, and the ability to see and manage conflicts proactively have all improved steadily. There is a real appreciation for the organization’s strategy, an understanding of goals and a growing culture of accountability toward achieving those goals that is becoming hardwired into the department.

“We have had a lot of organizational success over the past several years,” Ferguson said. “The IT department has been transformed from a support organization to an enabling organization, and with that change, Christiana Care has reaped the benefits.”

**Conclusion**

The maturation of an organization does not happen overnight. It takes not only a vision, but also a steady approach to be executed and difficult decisions to be made to ensure progress is foundational and sustainable, and that future success builds upon past learning (See Table 2). Success is not achieved by implementing industry standard methodologies alone. Rather, success is achieved by adopting a broader view of implementation that will deliver organizational benefits.

In this case, the concept of implementation combines process improvement, project management, portfolio management, organizational change management and risk management. However, adoption of this implementation concept involved a paradigm shift for the organization. It is a slow process that has involved establishing a structural framework, demonstrating the benefits of that model, integrating operational performance focus with projects and

then enabling the organization to operate in a new goal-oriented implementation environment.

No two healthcare organizations are alike, and each organization's structure and culture must be understood before embarking on major IT change initiatives. Christiana Care executives still believe it has a long way to go. It plans to continue to use a subtle and sustainable approach to improve implementations. It will continue to use important IT-enabled projects to change the way it thinks and works, helping to "show what right looks like."

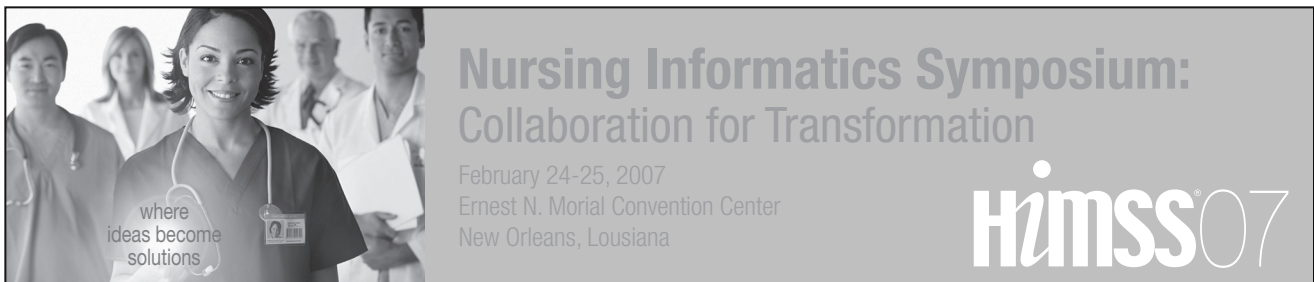
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