

*EFFECTIVELY COMBINING
PEOPLE, PROCESSES AND
TECHNOLOGY*

*McKESSON'S APPROACH TO
HELPING HEALTHCARE ORGANIZATIONS
TRANSFORM CLINICAL CARE*

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EXECUTIVE SUMMARY

The handwriting is on the wall. Because technology can significantly improve clinical processes, more and more IT will be expected in all healthcare settings – by patients, by doctors, by payors, by regulatory agencies, by the federal government, by watchdog groups. Once implementation is complete, the new technology and processes will continue to nourish patient safety initiatives, staff morale, workflow efficiencies and revenue generation.

However, whether implementations succeed or fail is up to the provider. Deployment of technology should not be a single decision contained to software and hardware; instead, it should address what is broken and lead the organization into clinical transformation. Healthcare executives with the foresight to maximize and protect their investment will use the clinical consulting methodology of a trusted partner like McKesson to redesign processes, accelerate implementation, influence training and adoption, and develop and monitor performance goals. The measure of success will be the achievement of a unified, methodical approach that effectively blends people, processes and technology.

By employing a proven methodology, McKesson's clinical consulting team delivers strategic services concentrated on integrating people, processes and technology. The result is streamlined processes, high-quality clinical outcomes and reduced costs across the continuum of care.

GROWING DEMAND FOR CLINICAL IT

The march toward increasing the use of clinical information technology (IT) in healthcare has formidable momentum. Industry watchdogs, regulatory agencies, healthcare associations, payors and even the federal government are pushing for clinical IT to make healthcare safer and more effective.

In fact, regulatory agencies are tying more compliance standards to the implementation of solution-based information technology. The federal government sees clinical IT as a way to improve public health through a universal electronic health record with shared and standardized data. And payors are starting to link reimbursement to healthcare excellence and patient safety indicators through pay for performance initiatives. In addition, a report by the Institute of Medicine¹ notes, "In order to significantly reduce the tens of thousands of deaths and injuries caused by medical errors every year, healthcare organizations must adopt information technology systems that are capable of collecting and sharing essential health information on patients and their care."

So, the question for healthcare providers is not "if", but "when?" With so many advocates and so few naysayers, why is there still such a low percentage of successful IT implementations? According to a government survey², only about 30% of hospital emergency rooms and 17% of physician offices use an electronic medical record. Additionally, a 2004 survey³ conducted by Health Data Management, shows that more than 50% of hospitals and physician practices ultimately categorized their IT initiatives as failures, despite an initial successful implementation.

WHY TECHNOLOGY FAILS

While the technology is often blamed for failure, a closer look at how the technology was implemented reveals the truth. Technology imposed on an environment where clinicians are still using old processes geared to a paper-based system is much less likely to be successful. A 2002 Healthcare Information and Management Systems Society (HIMSS) article, "A Technological Approach to Enhancing Patient Safety," concludes: "If technology is applied to an inefficient manual process, it will retain its inefficiencies when automated. Technology, combined with clinical process transformation, holds the most promise for improvement."⁴

The widely reported failure of the computerized provider order entry (CPOE) system at Children's Hospital of Pittsburgh (CHP)⁵ is a prime example of the ramifications of

1 McGlynn, EA, SM Asch, J. Adams, J. Keesey, J. Hicks, Institute of Medicine Report. JAMA 284 (1):93-95.

2 R Kaushal, DW Bates. "Information technology and medication safety: what is the benefit" - Qual Saf Health Care, 2002

3 Oracle and Health Data Management 2004 CIO Survey, "2004 Systems Integration Survey"

4 Kimmel, Kathleen Covert. Sensmeier, Joyce. "A Technological Approach to Enhancing Patient Safety." Healthcare information and Management Systems Society, 2002.

5 Han YY; Carcillo JA; Benkataraman ST, et al., Department of Critical Care Medicine, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, USA. "Unexpected increased mortality after implementation of a commercially sold computerized physician order entry system,": Pediatrics, December 1, 2005 – Volume 116, Issue 6.

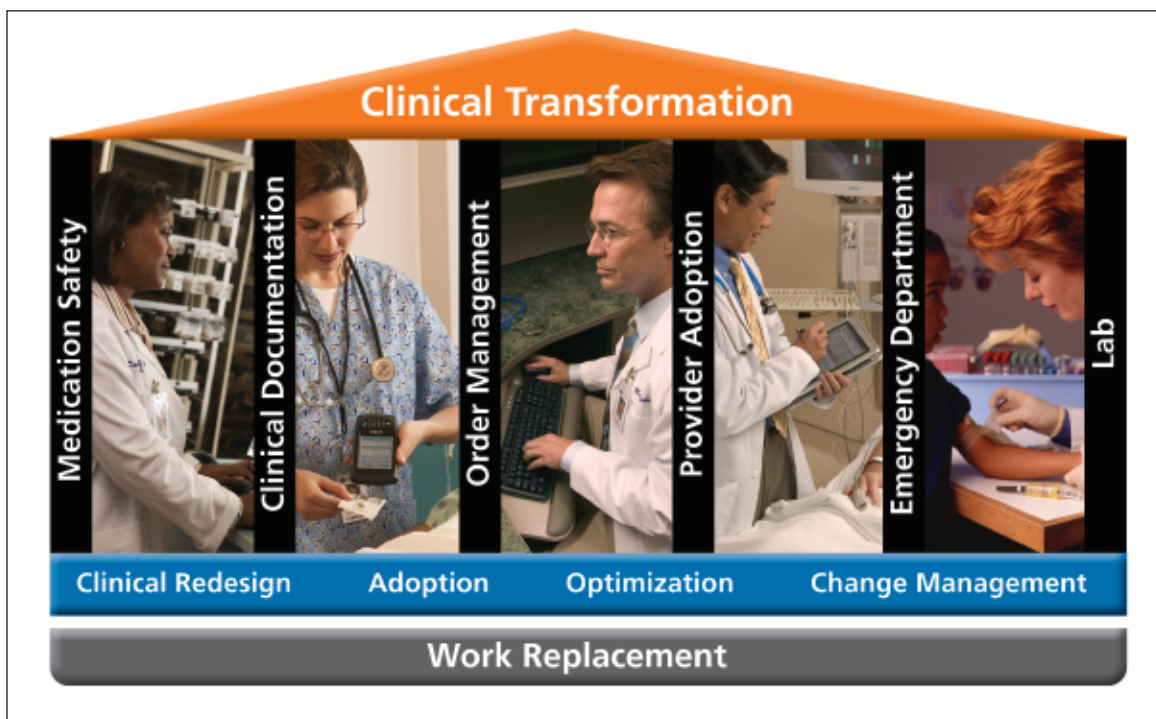
information technology implemented in a vacuum. The system went live at CHP without assessing the residual impact to all departments. From registration to medication administration, the system failed to work in conjunction with the clinician and hospital departmental workflow. The need to redesign workflow to complement the newly automated order entry process was ignored. Exacerbating the problem, provider adoption of the system was only an afterthought.

According to reports, children died as a result of this failure. Imposing technology on an environment where clinicians are still using old processes geared to a paper-based system is not likely to be successful. While the inflexibility and inherent software glitches in this particular system are to blame for some of the difficulties, the core problem lies in the assessment of the hospital's processes and the resulting design of the system.

Before implementing new technology, a provider should know:

- Does the system meet the needs of the acute-care facility's people and processes?
- Does the design phase produce a product that truly integrates processes to provide seamless computerized provider order entry?
- Are all key users involved in the product implementation?

Technology alone is not enough. Clinical transformation is critical, and most healthcare organizations require external expertise to achieve it. The power of clinical consulting services lies in the ability to effect change and overcome cultural barriers to help healthcare providers strategically integrate technology with process redesign and the people who use it to achieve true clinical transformation.



UNDERSTANDING CLINICAL TRANSFORMATION

Clinical transformation involves assessing the way patient care is delivered at all levels in a hospital. It occurs when an organization rejects existing practice patterns that deliver inefficient results and embraces a common goal of patient safety through process redesign and IT implementation. By effectively blending people, processes and technology, clinical transformation advances across facilities, departments and clinical fields of expertise.

Clinical transformation can have a major impact on:

- Patient and medication safety
- Provider and clinical adoption of technology
- Clinical practice reform
- Patient care policies and procedures
- Clinical documentation standardization
- Emergency department and ancillary efficiency
- Emergency and laboratory throughput
- Employee performance accountability
- Regulatory standards and quality improvement standards monitoring

Clinical transformation is achieved by:

- Improving the organization's ability to analyze and use required clinical information to achieve targeted results
- Leveraging major clinical information system investments by re-engineering the patient care processes to improve operations, provide the highest level quality care, and achieve the ultimate in patient safety and satisfaction.
- Evaluating the organization's business and clinical approaches against "best practice" operations, identifying areas for improvement and helping optimize workflow to achieve the highest return on investment.
- Supplementing, leading and instructing the workforce using experienced clinical experts.

Clinical transformation ensures that people and processes are aligned. The newly implemented IT supports the transformed work steps and provides standardized information at the point of care. More importantly, the clinical transformation and success of the product implementation are sustained across the continuum of care and over time.

MEASURING SUCCESS

How can you tell if an investment in clinical consulting and IT is worthwhile? Healthcare leaders that achieve clinical transformation through process redesign and deployment of IT concentrate their efforts around achieving five key elements: time to value, redesigned workflows using best practices, user acceptance and buy-in, metrics achieved, and sustainability.

Time to value

Significant investments in capital and personnel are necessary to implement technology solutions. Most administrators are focused on how quickly they can realize the value of their investment. To that end, the consultant must adopt an approach that facilitates accelerated timeframes and time to value.

Redesigned workflows using best practices

The incorporation of best practices into future state processes and workflows is the basis for customized process redesign. The end result is consistency in standardization of workflow to improve operational efficiency that positively affects the whole health system.

User acceptance and buy-in

Evaluating what drives end-user behaviors in the organization and reinforcing processes that drive good behaviors are keys to user acceptance, along with appropriate training. The consultant must be an active partner with the healthcare organization's team to understand what may impede buy-in and then take steps to remove those barriers. Even after implementation, strategies to address adoption are reassessed if needed.

Metrics achieved

The identification of operational performance indicators to help the organization measure and communicate progress is termed "metrics." Metrics are established by the team to set performance goals in the areas of transformation. Clinical consultants are responsible for developing, measuring and monitoring results.

Sustainability

The clinical consultant remains a partner in the ongoing success of the information technology implementation. Metrics are measured at future intervals to ensure the healthcare organization progresses toward the target level.

THE MCKESSON APPROACH TO TRANSFORMING CLINICAL CARE

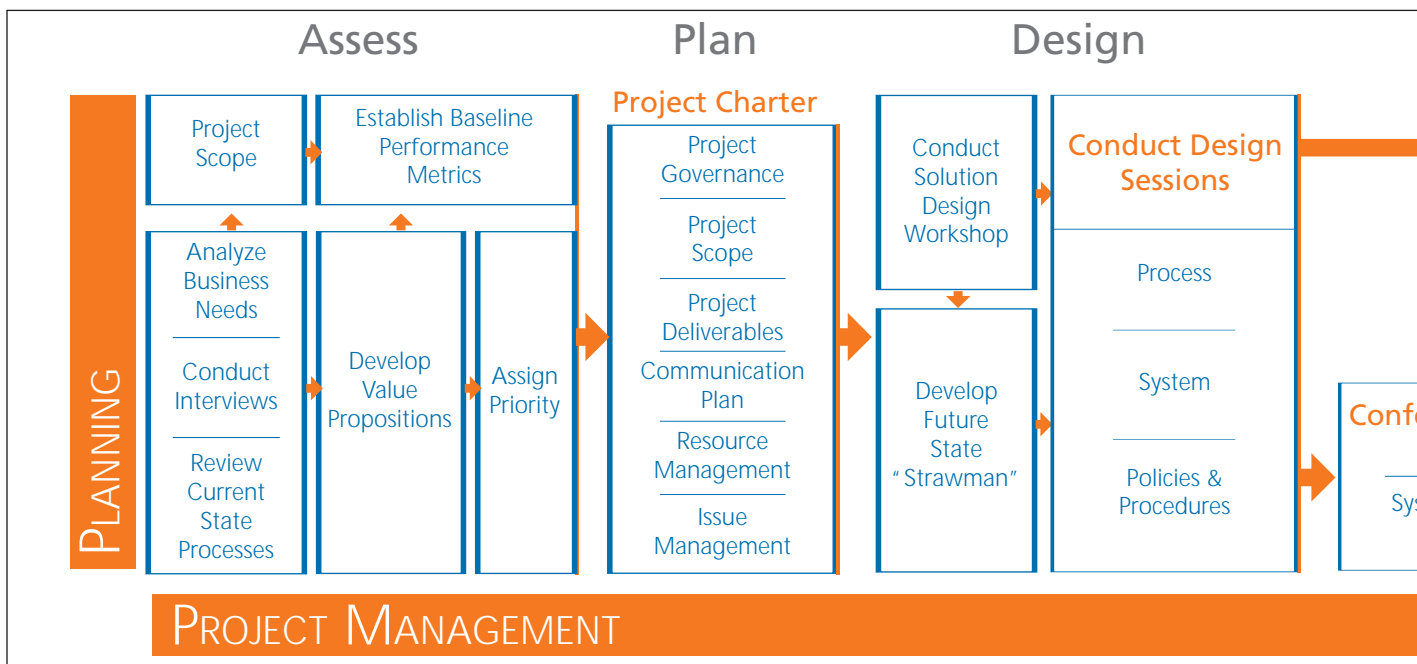
McKesson's approach to transforming clinical care recognizes that healthcare organizations must make significant process changes for a successful implementation. McKesson customizes its methodology to the individual needs of each organization. Clinical consultants with deep product and clinical experience guide each healthcare organization's multidisciplinary team through the different phases of the methodology, including project planning and management, assess and design, build, test, train, activate and transition (includes monitoring and deployment).

McKesson's clinical consultants are clinicians, process engineers and certified project management professionals. This broad interdisciplinary team approach does not allow the project to be the sole frame of reference for decision-making. The team is able to look at the strategic goals of the hospital along with the end-user perspective of the administrator, physician, nurse or ancillary staff.

Project planning and management

Developed jointly by McKesson's clinical consultants and the healthcare organization's team, the initial project plan provides the foundation for success. The final project plan includes objectives, communication matrix, scope management, issue management log, risk matrix and quality plan. The project kick-off with the healthcare organization comprehensively communicates goals and the method by which they will be achieved.

CLINICAL SERVICES METHODOLOGY



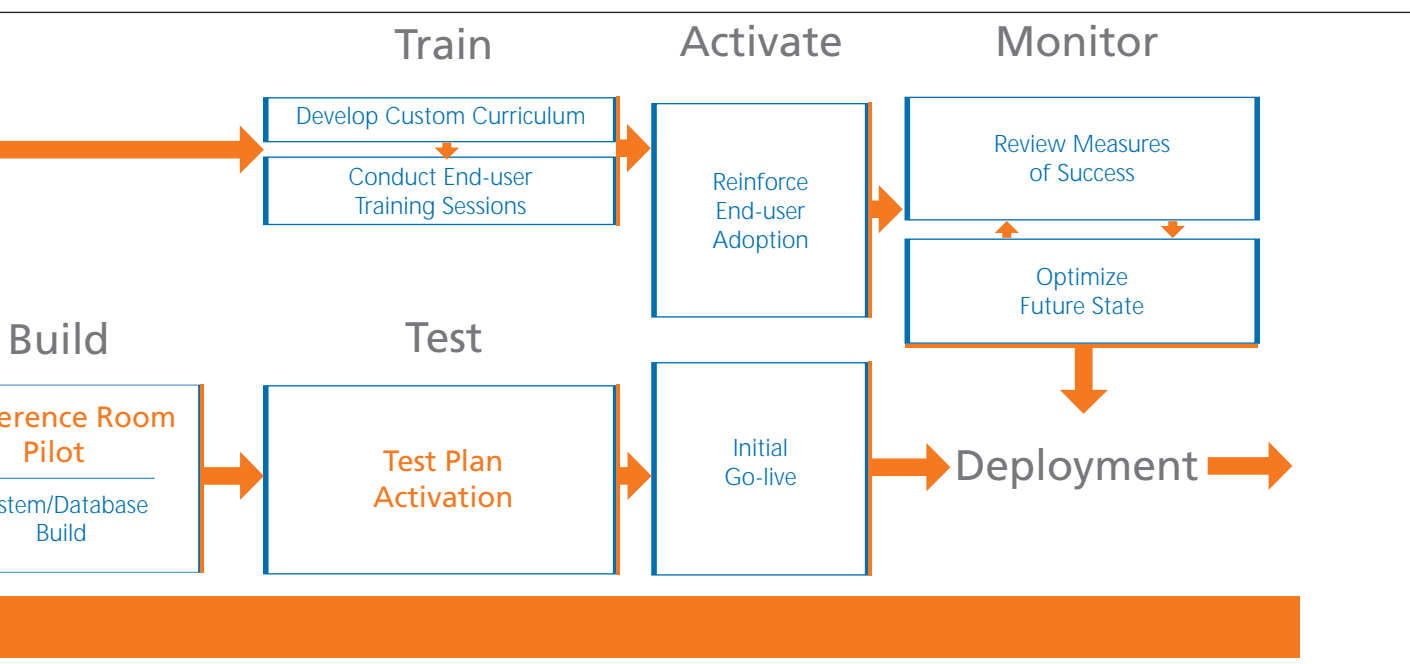
McKesson's clinical services methodology is based on the Project Management Institute Implementation Methodology. Our consultants guide customers through these steps: project planning and management, assess and design, build, test, train, activate, and transition (includes monitoring and deployment).

Assess and design

The assess and design phase identifies gaps in patient care processes and designs innovative solutions that are efficient, compliant and aligned with the organization's strategic targets. To streamline the healthcare organization's operations, the clinical consultant evaluates current processes, or the current state, to determine where improvement is possible. The operational environment is assessed to identify deficient processes, define best practices and establish performance goals.

To evaluate current processes, the consultant looks at the organization's culture, enablers, barriers, project roles, employee attitudes, skill levels, standards and work processes. Using a cross-section of managers, staff, clinicians and administrators, the consultant observes at the point of care and conducts interviews, surveys and focus groups. Without understanding all the underlying reasons for process inefficiency, organizations often address one problem area, only to create yet another issue. In addition to process workflow observations and clinician interviews, consultants also conduct chart audits, providing a three-tiered picture of current clinical practices.

The consultant creates a current state model of the health system, analyzes the model, and creates a model of a desired version of the system, or future state. This gap analysis, or study of the differences between current state and the future state, focuses on how the technology affects the overall system, specific facilities and all related departments. The gap analysis clearly points out critical areas the organization needs to focus on to successfully transition to the new system. The consultant determines current state workflow and pinpoints baseline metrics by performance category.



Consultants also work with the healthcare organization to identify organizational and industry best practices for use in the future processes that maximize the IT investment. Improvement recommendations specific to the organization's strategic objectives are established and compared to industry standards. Together with the healthcare organization, process engineers define benchmarks so that performance goals and targets can be identified. Customized specifications for policies and procedures, job descriptions and reports are developed. The end product is a customized best practices document.

Along with the consultants' strong understanding of the clinical application and the organization's gap analysis and recommendations, design workshops are conducted with key stakeholders. The sessions are conducted with a multidisciplinary team to map out and define the future state clinical practice model. Design workshops address standard content, redesigned workflow, policy/procedures revision needs, and training requirements.

The following is a sampling of materials that are used in the design stage and subsequent activities during an implementation project:

- Current state process flow summary
- Current state business requirements summary
- Performance metric scorecard
- Value proposition summary
- Design workgroup guides and materials
- Documented future state workflows
- Database system build outline
- Policy and procedure templates
- "Pilot" guide
- Training program development recommendations
- Integrated testing program development recommendations
- Go-live support guide recommendations

In addition, with clinical transformation intrinsic to all recommendations, strategies are developed to gain clinician consensus and acceptance of change and help ensure compliance. The team establishes roles and responsibilities for process redesign as well as creating a way of charting and monitoring progress.

The assess and design phase culminates in an executive presentation that describes overall goals for transforming clinical documentation activities, discusses current operational metrics, and reviews process workflow analysis results. The value proposition contains recommendations for change, organizational impact, and a benefits realization proposal. To ensure complete internal buy-in and support for all stakeholders, a marketing and communication plan is also developed.

ASSESS AND DESIGN TACTICS

- Assess current state operations to identify gaps and target areas for improvement
- Identify specific improvement recommendations, industry comparison and rationalization for change
- Model new processes based on organization and industry best practices
- Facilitate the re-engineering of current processes
- Determine baseline metrics to measure process performance
- Define inputs, outputs and cross functional integration required by the processes for optimal efficiency
- Provide strategies to gain clinician consensus and assure compliance
- Establish roles and responsibilities for process redesign
- Monitor metrics and chart process performance to achieve strategic objectives

The time and attention devoted to the assess and design phase is a critical reason why McKesson's methodology brings about sustained change over time. The proven approach, team involvement, depth of assessment across all affected departments, and strength of design customization provide a robust context for the construction of the IT solution.

Build

The consulting team supports the building of the pilot clinical database. Policy and procedure change requirements are identified and a review of the proposed workflow is conducted in a controlled environment through scenario testing with super-users. The consultant incorporates best practices into policies and procedures that support the organization's objectives and solution design. Future state solutions are verified by a walkthrough of clinical scenarios with clinical end users.

The multi-disciplinary team of experts assigned to specific areas affecting the clinical IT deployment come together to make collective decisions about the final design. Any areas that would affect, directly or indirectly, the performance of the IT solution are addressed. At this time, the success criteria and measurement techniques are documented. Solution workflow diagrams, solution data flows, and solution design development requirement checklists are finalized.

Test and train

The build of the pilot clinical database is followed by simultaneous testing and user training. Clinical consultants assist in the integration and system testing requirements at the point of care. The policies, procedures, tools, content and contingencies are tested and retested. Every detail is examined and re-examined by the users before implementing the technology.

End-user training requirements are defined, and a training plan is implemented. Go-live support requirements are identified. Once the initial go-live is launched, any additional end-user training is completed. Through training, McKesson ensures that technology is used effectively with the least disruption to the care process. But the training is not limited to the technology; it also includes the new processes and policies that will make the technology effective.

Driving cultural change requires much more than simply teaching new skills, although skill training certainly plays an important part. Evaluating what drives end-user behaviors in the organization and reinforcing processes that drive good behaviors are essential. Processes that are barriers to good patient care are eliminated. Resistance to the change must be accounted for, expected and then overcome. Since training and adoption are closely linked, the clinical consultant develops a training strategy that enhances adoption.

Activate

An initial go-live and further end-user adoption occurs during activation. During this phase, the new technology-enabled processes and workflow are initiated. Clinical consultants provide post-activation support and retraining where needed. Short-term success is demonstrated and quantified according to performance improvement objectives. These metrics are followed and reported throughout the year. Specific support requirements are identified and addressed.

Transition

The transition phase recognizes that results are the true measure of success. In this final stage, further modifications to enhance end-user adoption and continuous monitoring ensure a smooth deployment. In fact, clinical consultants plan and support successive roll-outs to other departments until the solution is fully implemented across the enterprise.

The metrics are compared against the baseline and the realization of each performance objective is confirmed. Any metrics that fall short of established goals are investigated and the root cause is determined. Processes, policies and procedures are refined as necessary to achieve long-term business success and sustainability. Monitoring occurs again, the transformed processes are evaluated, and end-user satisfaction is confirmed.

Equal emphasis is placed on the confirmation of clinician adoption. Where needed, strategies to address adoption are implemented and reassessed. The job remains unfinished until the consulting team is fully satisfied with both the technology and the healthcare organization's ability to use it effectively.

WHY SOLARIS HEALTH SYSTEM CHOSE MCKESSON

Strategically integrating people, processes and technology can be challenging, even for the most experienced healthcare organization. Leading industry experts such as Gartner, Inc., as well as individual healthcare organizations, advocate using the same company for clinical consulting and IT purchase. Gartner has characterized healthcare IT companies – and specifically McKesson – as “some of the best-kept secrets” in the IT consulting/outsourcing market. “These companies have developed sizable outsourcing offerings to appeal to both their application client-base and the market in general ... [and] their application and workflow expertise is significant.”⁶

For executives at Solaris Health System in New Jersey – an organization experienced in IT implementations – the challenge was how to get the most out of its investment. Solaris chose McKesson’s clinical consulting team to help it meet aggressive objectives, in part because McKesson uses a proven methodology that follows the nationally recognized Project Management Institute (PMI) framework. The PMI methodology is proven and scalable, familiar to IT departments, and fully supported throughout each phase of deployment.

“If the processes and structure supporting the technology are flawed, even best-of-breed software will fail to deliver the desired result,” says Louis Hermans, chief information officer at Solaris. “As we made a significant investment in IT that would touch more clinical processes than ever before, we knew we needed a true partner to help us maximize the technology. McKesson provided us both the technology and the partnership.”

For example, at Solaris, McKesson’s clinical consultants worked to understand baseline processes, identify opportunities for change, prioritize activities and gain staff support. As a result, Solaris saw major successes in medication safety, physician adoption of IT, nursing documentation efficiency and process standardization, and physician and nursing satisfaction — in many cases before the technology was even installed.

Hermans expects continued wins. “We are hitting our targets and installing systems that physicians and nurses embrace. We’ve made tremendous headway, and we couldn’t have done it without McKesson being on our team.”

⁶ “Healthcare Sourcing Vendors Focus on Outsourcing and Value-Added Services,” Gartner Dataquest. July 5, 2002.

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Empowering Healthcare

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WHT190-03/06