❯SystemCPI℠ JumpStart:

119 HEALTHCARE IMPROVEMENT OPPORTUNITIES IDENTIFIED IN TWO WEEKS

CASE STUDY

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Advancing Process Improvement.

❭ About the Organization

The healthcare organization discussed in this case study is an integrated not-for-profit healthcare system founded in 1981. It provides comprehensive healthcare services to several communities in upstate NY and northern Pennsylvania. In addition to a community-based university-affiliated teaching hospital, the system includes three acute-care community hospitals. Primary and specialty care services are provided in twelve family health centers. The system includes home health, nursing home and long-term care, and other community health services and agencies. The system has a combined medical staff of more than 500 physicians, is licensed to provide more than 800 inpatient beds, and is one of the region's primary employers with more than 4,500 employees.

❭ Introduction

In late 2008, the hospital system was looking to move forward with an implementation of Lean Six Sigma. However, the leadership team knew that they did not have a deployment strategy in place to get the results they were looking for. They turned to NOVACES to help form a strategy for Lean Six Sigma deployment and build the infrastructure for a self-sufficient program. To accomplish this, NOVACES used the company's SystemCPI, an integrated roadmap to plan and manage the deployment of process improvement best practices, and to guide the hospital system along its journey to process improvement excellence.

Figure 1. SystemCPI Roadmap

❭ SystemCPI Jumpstart

The JumpStart assists organizations to quickly realize benefits from the deployment. The SystemCPI JumpStart program compresses the timeline from kickoff through development of the deployment plan to two weeks and completes all of the steps in the Assess Phase and initial steps in the Plan Phase, setting the path for the first wave of training.

During the JumpStart workshops, the SystemCPI approach addresses two common reasons for failures of process improvement deployments: poor project selection and lack of leadership engagement. To improve the project selection process and ensure that strategically aligned improvement opportunities are identified, SystemCPI employs three tools:

- SystemVSA℠: A system-level value stream analysis of the hospital
- System Constraint Identification: an analysis of the constraints that prevent the organization from attaining its goals
- Strategic Gap Analysis: a benchmark comparison of hospital performance against strategic goals

The deployment strategy developed during JumpStart is designed to drive executive leadership engagement. Successful CPI deployments must start at the top and flow down through the organization. The hospital system's leadership participated in each of the

JumpStart sessions. One advantage of JumpStart is that, although the two-week agenda is aggressive, the team is able to make adjustments to the schedule to allow for the executive team to deal with emerging issues that arise on a daily basis in a hospital and still participate in the planning process.

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- Senior Director, Clinical Operations
- Manager of Quality Management
- Administrator of Public Relations
- Director of Nursing Operations
- Performance Improvement Facilitator/Lean Engineer
- Education and Training Specialist

Leadership Training
The Executive Leadership Team (ELT) participated in a kickoff presentation addressing the SystemCPI approach and the path forward. The ELT attended Champion Training along with mid-level leaders, who will become Champions. The training was two days and covered topics included the fundamentals of Lean, Six Sigma, and Constraints Management, roles and responsibilities, project selection, prioritization, and project chartering. During course workshops, the ELT and Champions jointly developed the project prioritization system that will be used to select projects. Thus, this initial cadre of Champions became responsible for initiating the first wave of improvement efforts. Importantly, the Champions left the training with project charters in hand.

System Constraint Analysis
The System Constraint Analysis identifies and links critical success factors and conditions necessary to attain the overarching organizational goal. It provides leaders with visual map of specific policy and market constraints that can prevent reaching the goal. It also identifies the key leverage points of the organization so that scarce resources are focusing on the right opportunities. Constraints are like the weakest link in chain – and the weak links are where the most impact can be made. For the hospital system, the focus point became Operational Performace.

Strategic Gap Analysis
The Strategic Gap Analysis identifies gaps in current performance by comparing performance against established criteria. The deployment team reviewed numerous sources to identify performance gaps and translated them into improvement opportunities. NOVACES uses the following data sources for gap analysis:
- Press Ganey Patient Satisfaction Survey
- Culture of Safety Survey
- Treo Resource Management: LOS, Cost and Charges
- Joint Commission Periodic Performance Review
- Joint Commission / Centers for Medicare & Medicaid Services (CMS) Core Measures
- Quality Indicators (including HEDIS)

Tools Applied
- Strategic Gap Analysis
- SystemVSA
- System Constraint Analysis
- Change Readiness Assessment
- CPI Maturity Assessment
- ProcessVSA
- Rapid Improvement Workshops

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- NY Dept of Health (National Database of Nursing Quality Indicators)
- United Health Services Hospitals (USHS) Dashboard
- Blue Cross Blue Shield Scorecard
- Internal Clinical Excellence Measures

SystemVSA

The SystemVSA maps core business processes and transitions the organization from a collection of functions to a system of interdependent processes. The healthcare organization has four core processes: Inpatient Care, Outpatient Care, Community Health Services, and Provide/Assure Healthcare Services (the latter included medical education, community and government relations, as well as internal recruitment and retention). The core processes are drilled down into component processes until key performance metrics and performance gaps could be identified.

Synergy of the Triadic Approach

The combined outcomes of the three event described above resulted in the identification of 119 strategically aligned improvement opportunities. The opportunities were linked to specific organizational strategies as well as their level of impact on the core problem area. Additionally, the most appropriate improvement methodology was identified to assist in scheduling, training needs, and resource allocation. The breakouts by function and methodology are shown below.

CPI Maturity Assessment

CPI Maturity Assessment is administered to the executive leadership team early in the deployment, typically during JumpStart to provide a baseline for the organization. It is also administered periodically to validate progress.
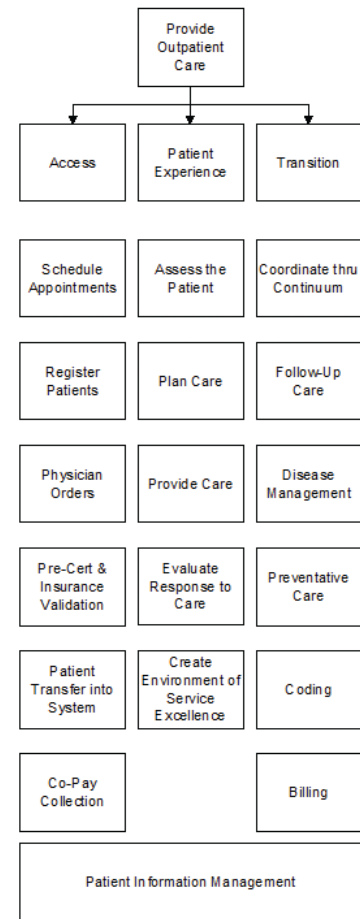
Figure 2. Excerpt of SystemVSA for core process "Provide Outpatient Care"
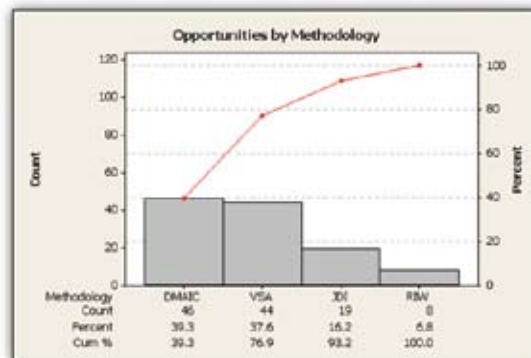
Figure 3. Breakdown of improvement opportunities by function and CPI methodology

For this healthcare system, the maturity assessment indicated that the organization was actively pursuing process improvement throughout the organization. It also revealed that the work constituted multiple, localized efforts but was not yet focused on strategic alignment or long term sustainability.

Figure 4. CPI Maturity Assessment Scorecard

Change Readiness Assessment
An organization's willingness to change determines how quickly and thoroughly the deployment can proceed. By assessing change readiness, different drivers for the deployment are emphasized to produce the best outcomes. The change readiness assessment measures five different readiness dimensions: communications, culture, leadership, organization, and skills.

Based on the outcome of the change readiness assessment, the hospital system is well-poised to move forward with their CPI deployment efforts, but has room for improvement. They scored the highest in communications. For the most part, communications throughout the organization seemed open and consistent. The dimension with the weakest score was organization. This is consistent with Peter Drucker's observation, "The hospital is altogether the most complex human organization ever devised." The deployment plan included recommendations for them to adjust current practices that would enhance their adaptability to system-wide change.

Communications Plan
With the active support of their Community Relations Department, the deployment team produced a very comprehensive communications plan. The plan identified nine distinct audiences, sixteen separate communications vehicles and a distinct communications strategy by audience.

› The Results
Of the 119 improvement opportunities identified, the Congestive Heart Failure Discharge, Patient Transfer, and Critical Lab Testing/Reporting processes were scheduled for Process VSAs, in which process-level value streams would be mapped and streamlined. At least one Rapid Improvement Workshop (RIW) per ProcessVSA was conducted to carry out improvement actions and get results within the first 45 days of the deployment kick-off. The improvements realized as a result of these efforts were:
- Reduction of CMS Core Measure Failures for CHF from 30% to zero
- Elimination of 28 minutes from ED LOS, a 44% improvement
- Reduction of STAT Laboratory cycle time by removing 7,300 miles per year of travel from the phlebotomists' process

› Summary
At the conclusion of the two-week JumpStart, a complete Deployment Plan was presented to the executive leadership team. The plan included the results of each of the three leadership workshops: System Gap Analysis, SystemVSA, and System Constraint Analysis, both organizational assessments, the communications plan, and the training plan. As the organization moves into full-scale deployment, they will begin working on

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Six Sigma projects that will focus on problem-solving and error reduction. There are some challenges ahead, such as sustainment of an effective project selection system and the need to standardize a financial validation process for improvements. The hospital system is now in the process of carrying out the training plan to garner Champion support from hospital management and utilizing newly trained Lean Six Sigma experts to complete high-impact improvement projects.

About the Author
Dan Chauncey, Director of Deployment Services

Dan is the director of deployment services for NOVACES. He is a Master Black Belt who has been directly involved in the development and application of process improvement methodologies for more than twenty years. He began his career in the U.S. Air Force where, as a director of strategic planning and quality improvement, he was responsible for conducting needs analysis and developing the leadership approach for a variety of service-wide initiatives. Subsequent to his military service, he joined Humana Inc. where he led a structured approach to process improvement in the customer service center. At the University Health System in San Antonio, TX he identified improvement opportunities, set the goals and the plan using the Malcolm Baldrige National Quality Award criteria that resulted in significant quality improvements and cost savings. Later during his role as Assistant Vice President at Rath & Strong, a division of Aon Management Consulting Group, he trained over 850 Green and Black Belts and mentored over sixty process improvement efforts that realized combined savings exceeding $6 million. In his role at Grant Thornton, a global accounting, tax and business advisory, he accomplished the mission of applying Lean principles to achieve a reduction in cost management reporting cycle times for the U.S. Army. Dan has written extensively, including Instructional Design for the Corporate Trainer: A Handbook on the Science of Training (Writers Club Press) and he authored the Process Management chapter in Rath & Strong's Six Sigma Leadership Handbook (John Wiley & Sons), plus a variety of articles on the subject of Lean Six Sigma deployment. Dan holds a B.S. degree in Criminal Justice and Behavioral Science from Wilmington College, an M.A. in Human Resource Development and an MBA from Webster University.

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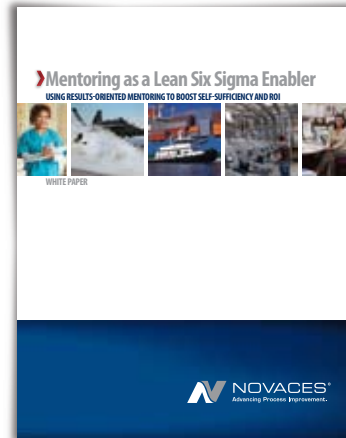## www.novaces.com/wp
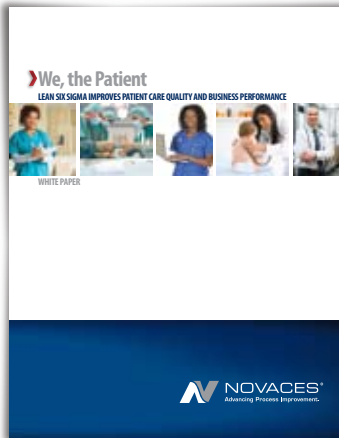
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Introducing System CPI
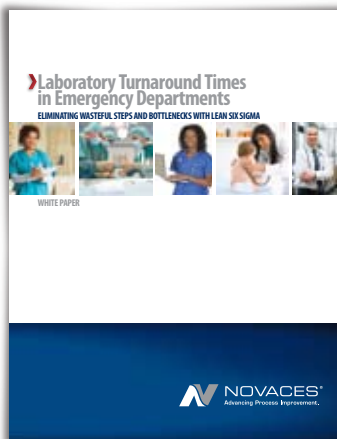An Integrated Roadmap to Deploy and Manage Process Improvement Initiatives
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Case Study

ProcessVSA
Congestive Heart Failure Discharge
Case Study

ProcessVSA
Value Stream Analysis of the Voyage Planning & Scheduling Process
Case Study

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119 Healthcare Improvement Opportunities Identified in Two Weeks
Case Study

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NOVACES is a leading provider of continuous process improvement (CPI) consulting and training services. By leveraging over two decades of applied research experience, we are capable of delivering today's most effective methods for generating breakthroughs in operational capabilities and financial performance.

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