Sustainable Productivity Improvement Programs to Increase Operating Margins in the U.S. Healthcare System

An effective approach to achieve reduced costs and improved service, while increasing morale and retention
“I’ve been in healthcare for 20 years, and every productivity analysis group we worked with felt like hand-to-hand combat, until we partnered with EHS. They built a positive rapport with our managers, focused on factors we could control, and we realized $10 of savings for every $1 we invested in less than a year.”

S. Lee Boles Jr.
Chief Financial Officer
Hunt Regional Medical Center
Sustainable Productivity Improvement Program to Increase Operating Margins in the U.S. Healthcare System

An effective approach to achieve reduced costs and improved service, while increasing morale and retention

Sharon McCoy, PhD, Senior Consultant, Envigorate Healthcare Solutions
Michael Talerico II, MBA Managing Partner, Envigorate Healthcare Solutions

Abstract:
EHS’s application of strategic cost management (SCM) reduces hospital labor cost without decimating staffing levels, and the tools and techniques they deliver to their clients ensure durable financial benefit for years to come. EHS has implemented hundreds of programs that have significantly improved financial well-being and service levels across the full spectrum of healthcare organizations.

- More than 30 years of service to the U.S. healthcare industry
- Straightforward delivery model – fixed fee
- Rapid ROI – initial investment can be recouped in 6 months
- Proven savings ratio of 16.4 to 1
- Savings sustainable year after year

The Partners and Consultants of Envigorate Healthcare Solutions (EHS), formerly known as Delta Health, have provided consulting expertise to the healthcare industry for more than 30 years. Our best testimony is our clients. Average return on investment is greater than 10 to 1 and the investment is recouped within the first 9 months.
Every U.S. healthcare organization struggles to reduce costs without compromising service quality. All too often, however, management looks to staff cuts as the first and most obvious solution. Labor accounts for approximately 60% of total operating cost in a typical healthcare system; even a modest reduction in labor costs can substantially change the short-term bottom line. In our experience with today’s tight margins, a savings of only 3% can increase profit margin by as much as 2%. However, such gains, when achieved through massive layoffs, do not endure in the longer term.

The “slash and burn” strategy of massive layoffs incurs substantial expense in severance and related costs. In addition, it often results in staffing losses across all departments with no appreciation of individual departmental need. Typically, within a few months service quality standards are compromised and staffing tends to return quickly to previous levels across the board, nullifying the cost reduction effort.

**What is strategic cost management?**

EHS applies the principles of strategic cost management (SCM) to healthcare productivity improvement. Our SCM solutions reduce costs and save jobs by empowering management to make more rational daily decisions about the use of existing staff. Unlike the job-cutting slash and burn approach, SCM yields durable increases in productivity and ongoing cost savings through 1) attrition, 2) volume absorption, 3) reduced overtime and agency hours, 4) skill-mix adjustments, 5) career redirection, and SCM serves the goal of continuous improvement, yielding benefits year after year, by increasing the organization’s ability to reinvest in itself and better serve the healthcare needs of the community. Profitable and successfully run healthcare organizations also attract and retain talented personnel, reducing turnover costs.

**SCM is an ongoing process, not a one-time solution.**

Each hospital, indeed each hospital department, is unique and requires a unique application of SCM for success. Such customization can only be achieved by working in partnership with our clients. To achieve targeted cost reductions in the short term and extend savings into the longer term, the hospital’s executive and management teams must understand how SCM operates. More importantly, they must believe in the metrics and the methodology. Conventional cost-management consultancies import industry benchmarks for comparison by percentile; we don’t believe such “exogenous” metrics have any bearing on your operations, nor will they produce real change. We develop department-specific goals and targets in collaboration with your management team by using proprietary tools that managers learn and continue to use, ensuring the durability of SCM benefits for years to come.
We give you the SCM tools you need for continuous improvement.

The key to continuous improvement is education and empowerment. EHS does not simply execute an SCM evaluation of your hospital, write a report and walk away. We give you the tools and teach you to use them so you can make strategic cost management an integral part of daily operations. The centerpiece of our process is the Web-based Envigorate Productivity Reporting System (EPRS). This tool incorporates our Operational Profile System, which is used to develop department-specific staffing targets, and our Service Audit Process.

A successful program requires not just management buy-in and training in SCM, but active executive participation. EPRS provides user-friendly, high-level summary reports to the executive team. EPRS also integrates with your existing financial and human resources tools, contributing data to improve and enhance processes as diverse as budgeting, position control, manager evaluations, promotion decisions and employee requisition forms. Regular analysis of every department by the executive team reinforces the importance of achieving productivity goals.

How (and how well) does EHS application of SCM actually work?

The typical EHS SCM initiative begins with thorough assessments of each department’s internal operations. In nursing units, this includes an evaluation of patient acuity*, patient needs and staff skill mix. We consider support systems, current automation, information technology and interdepartmental factors.

---

*Patient acuity indicates direct care time the patient requires. For example, a very sick patient in the ICU might be graded F or G, indicating high level of need, while a relatively healthy patient admitted for short-term observation only would be graded A or B, indicating a lower level of need. Through this process it is common for EHS consultants to identify opportunities to allocate additional time to improve patient care.

---

### EPRS Features & Benefits

- Web application
- Daily or bi-weekly reports
- Designed for the department manager and executive team
- Easily understood reports
- Measured financial performance and service quality
- User-friendly executive dashboard
- Multi-hospital analysis and comparison
- Integrated budget process
- Enhanced planning and forecasting
- Appropriate allocation of scarce resources
- Automated transfer of data
- Customized reports and dynamic graphing capabilities
- Fully installed in three calendar months
In concert with departmental managers, we establish a balance among cost, quality and service expectations; develop realistic short- and long-term volume-based labor targets; develop staffing plans and grids; and produce detailed recommendations to achieve and maintain acceptable productivity levels. At every step, we work with hospital staff, management and administration to ensure buy-in on the targets and recommendations. EPRS provides daily and/or bi-weekly productivity reports, as needed. Finally, we assist in the development of a management action plan (MAP) and assist in implementation. Table 1 profiles examples of full-scale SCM initiatives completed by EHS (12 hospitals, 9 U.S. states). Most projects were completed in less than 6 months. Identified savings across these projects totaled more than $86 million. Total identified savings exceeded total guaranteed savings by 45%. Average return on cash investment of guaranteed savings was 16.4 to 1.

Table 1. Average return on cash investment of guaranteed savings

<table>
<thead>
<tr>
<th>Geographic region (US)</th>
<th>Beds</th>
<th>Guaranteed savings</th>
<th>Identified savings(^b)</th>
<th>Return on cash investment (ROI)(^c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Southwest</td>
<td>774</td>
<td>$6,000,000</td>
<td>$11,400,000</td>
<td>15.3 to 1</td>
</tr>
<tr>
<td>Central Northeast</td>
<td>247</td>
<td>$3,000,000</td>
<td>$3,500,000</td>
<td>17.1 to 1</td>
</tr>
<tr>
<td>Atlantic South</td>
<td>800</td>
<td>$11,400,000</td>
<td>$15,800,000</td>
<td>16.5 to 1</td>
</tr>
<tr>
<td>Mountain West</td>
<td>154</td>
<td>$2,820,000</td>
<td>$4,000,000</td>
<td>15.0 to 1</td>
</tr>
<tr>
<td>Pacific West</td>
<td>50</td>
<td>$1,680,000</td>
<td>$2,800,000</td>
<td>9.0 to 1</td>
</tr>
<tr>
<td>Pacific West</td>
<td>220</td>
<td>$7,000,000</td>
<td>$11,665,000</td>
<td>31.9 to 1</td>
</tr>
<tr>
<td>Central Southeast</td>
<td>130</td>
<td>$1,000,000</td>
<td>$2,000,000</td>
<td>6.3 to 1</td>
</tr>
<tr>
<td>Atlantic South</td>
<td>52</td>
<td>$600,000</td>
<td>$2,500,000</td>
<td>5.7 to 1</td>
</tr>
<tr>
<td>Atlantic South</td>
<td>540</td>
<td>$12,000,000</td>
<td>$15,000,000</td>
<td>16.0 to 1</td>
</tr>
<tr>
<td>Central Southwest</td>
<td>640</td>
<td>$9,840,000</td>
<td>$12,000,000</td>
<td>19.7 to 1</td>
</tr>
<tr>
<td>Pacific West</td>
<td>210</td>
<td>$3,400,000</td>
<td>$4,000,000</td>
<td>14.8 to 1</td>
</tr>
<tr>
<td>Central Northwest</td>
<td>18</td>
<td>$348,000</td>
<td>$750,000</td>
<td>3.8 to 1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$59,088,000</strong></td>
<td><strong>$85,415,000</strong></td>
<td><strong>16.4 to 1 (avg)</strong></td>
</tr>
</tbody>
</table>

\(^a\) Identified savings refers to improvement opportunities identified and agreed to by client.

\(^b\) Average ROI equals total guaranteed savings divided by maximum cash invested ($3,610,000).
Case Study 1
Medical Nursing Unit

A 640-bed hospital in the Southwest U.S. sought operational improvements and cost reductions in its medical nursing unit. The Medical Nursing Unit study illustrated below was one component of the engagement and required approximately 3 weeks out of the full 6-7 month engagement. SCM resulted in improved utilization and reduced salary cost per patient day (Figure 1). A linear plot of salary cost per unit (light gray line) shows a steady decrease across the life of the project.

Figure 1:

<table>
<thead>
<tr>
<th>PT. DAY</th>
<th>MEDICAL NURSING</th>
<th>COST PER DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/13/08</td>
<td>727</td>
<td>780</td>
</tr>
<tr>
<td>7/27/08</td>
<td>729</td>
<td>780</td>
</tr>
<tr>
<td>8/10/08</td>
<td>724</td>
<td>780</td>
</tr>
<tr>
<td>8/24/08</td>
<td>723</td>
<td>780</td>
</tr>
<tr>
<td>9/7/08</td>
<td>721</td>
<td>780</td>
</tr>
<tr>
<td>9/21/08</td>
<td>720</td>
<td>780</td>
</tr>
<tr>
<td>10/5/08</td>
<td>720</td>
<td>780</td>
</tr>
<tr>
<td>10/19/08</td>
<td>719</td>
<td>780</td>
</tr>
<tr>
<td>11/2/08</td>
<td>720</td>
<td>780</td>
</tr>
<tr>
<td>11/16/08</td>
<td>719</td>
<td>780</td>
</tr>
<tr>
<td>11/30/08</td>
<td>718</td>
<td>780</td>
</tr>
<tr>
<td>12/14/08</td>
<td>716</td>
<td>780</td>
</tr>
<tr>
<td>12/28/08</td>
<td>715</td>
<td>780</td>
</tr>
<tr>
<td>1/11/09</td>
<td>714</td>
<td>780</td>
</tr>
<tr>
<td>1/25/09</td>
<td>713</td>
<td>780</td>
</tr>
<tr>
<td>2/8/09</td>
<td>711</td>
<td>780</td>
</tr>
<tr>
<td>2/22/09</td>
<td>710</td>
<td>780</td>
</tr>
</tbody>
</table>

Key opportunities for improvement, applied solutions and outcomes are summarized below:

**Opportunities**
- Improve financial performance
- Develop department-specific hours/patient-day target
- Reduce overtime and agency hours
- Improve staff satisfaction
- Match staff schedule to fluctuating volumes
- Address abnormally high use of “sitters”

**Solutions**
- Develop patient care requirements for specific patient population
- Create a mechanism to assign workload by patient acuity rather than location
- Redefine roles of patient care coordinators and unit secretaries
- Revise staffing according to admission, discharge and transfer activity
- Review criteria for “sitter” assignments

**Outcomes**
- Reduced overtime by 49%
- Reduced salary cost/unit by 12% (from $360 to $316)
- Elimination of agency hours
- Consistent staff schedules
- Ongoing management reporting of results
Case Study 2
Operating Room

A 540-bed hospital in the Southeast U.S. sought operational improvements and cost reductions in its operating rooms. The operating room study illustrated below was completed in five weeks and is one representative component of a greater SCM engagement that was completed within seven months. SCM resulted in reduced overtime and reduced salary cost per surgical hours (Figure 3). A linear plot of salary cost per unit (light gray line) shows a steady decrease across the life of the project.

Figure 3:

Key opportunities for improvement, applied solutions and outcomes are summarized below:

### Opportunities
- Increase room utilization
- Decrease OR turnaround time
- Review surgery scheduling system
- Develop appropriate staff hours per surgical hour
- Decrease overtime and agency hour use

### Solutions
- Improve operational process
- Redefine roles and responsibilities
- Improve case/staff scheduling practices in conjunction with physician preferences and behavior

### Outcomes
- Increased room utilization by 28%
- Reduced case turnaround time by 30%
- Reduced cost/surgical hour by 21% (from $290 to $229)
- Initiated new staff and case scheduling systems
- Reduced overtime and agency hours
In 30-plus years of operation, EHS has implemented hundreds of programs that have significantly improved financial well-being and service levels across the full spectrum of healthcare organizations. Typically, institutions we work with remain clients after the initial implementation and continue to use our SCM tools and methodologies.

An ongoing SCM program developed by EHS will reduce labor cost with no negative effects. We guarantee it. Additional benefits include, but are not limited to, the following:

- Streamlined Operations
- Enhanced Patient Flow
- Identification of available capacity
- Right-size workforce
- Improve staffing and scheduling practices
- Reduce premium pay and agency dependency
- Identification of realistic staffing targets
- Streamlined budgeting cycle
- Increase employee retention and satisfaction
- Enhanced service levels
- Timely, accurate, meaningful reporting via EPRS
- Improved Patient Satisfaction
- Elimination of redundant work
- Process improvement and elimination of bottlenecks
- Empowered and engaged Management Team

**SCM enhances the hospital’s relationship with the community it serves.**

In an era of impending healthcare reform, against the background of diminished financial resources and declining employment nationwide, SCM holds the promise of reducing labor costs without decimating staff levels. This seemingly counterintuitive assertion takes on special significance when you consider that healthcare systems are often major local employers—sometimes the largest in the area. Preserving hospital jobs confers and sustains far-reaching economic benefit throughout the community, which underscores the institution’s role of responsible citizenship and a relationship of mutual benefit.

EHS empowers more than 300 hospitals and medical centers to identify and execute resource management opportunities. Our customized approach and proprietary analytics software have enabled these institutions to improve long-term financial performance up to 6% while simultaneously improving service levels to patients.
Authors

Sharon McCoy, PhD
Consulting Director
Envigorate Healthcare Solutions

Michael Talerico II, MBA
Managing Partner
Envigorate Healthcare Solutions

Learn More

Strategic Cost Management Consulting
Envigorate Healthcare Solutions (EHS) empowers more than 300 hospitals and medical centers to identify and execute resource management opportunities. Our customized approach and proprietary analytics software has enabled these institutions to improve long-term financial performance up to 6% while simultaneously improving service levels to patients.

www.envigoratehealthcare.com 610-585-4531