No Mission ↔ No Margin: It’s That Simple

Jon N. Meliones, Richard Ballard, Richard Liekweg, and William Burton

The authors describe their experience in developing a strategy-focused organization using the balanced scorecard methodology. They achieved this at Duke Children’s Hospital by aligning the clinicians and administrators around a single integrated platform that linked improving business processes with achieving quality clinical outcomes. By organizing in this manner, they reduced cost by $30 million and increased net margin by $15 million while improving outcomes and staff satisfaction. This article describes a methodology to achieve strategic control of the organization, increase the knowledge of key stakeholders, and transform the organization to optimize the organization’s performance. Key words: balanced scorecard, business process, health care, quality

Introduction

In 1996, Duke Children’s Hospital was in crisis, and financial pressures were mounting. A decrease in Medicaid allowances and an increase in patients with capitated reimbursement were driving revenues down. Expenses were rising as cost per case for children’s services ballooned from $10,500 in fiscal year (FY) 93 to $14,889 in FY96. This caused a dramatic reduction in the net margin from $2 million in FY93 to $11 million in FY96. Programs were slated to be eliminated, and services were targeted for reduction. Staff productivity had fallen from the 80th to the 70th percentile range. In addition, patient and staff satisfaction was at an all-time low.

The course of Duke Children’s Hospital has been transformed dramatically. Costs were reduced by nearly $30 million in FY2000 (see Figure 1). Net margin has increased by $15 million (see Figure 2), and staff satisfaction is at a record high. In addition, Duke Children’s Hospital received the “Best Practice” award from the North American Balanced Scorecard Summit for excellence in business process. How were these accomplishments achieved? By becoming a strategy-focused organization that aligned administrators and clinicians around a single integrated platform: the balanced scorecard.

Crisis or Opportunity?

How did medicine become so “challenged?” It started with a shift in the drivers of health care. Previously the only real driver was clinical quality—health care was all about quality clinical outcomes, quality clinical outcomes, and quality clinical outcomes.

Jon N. Meliones, MD, MS, CPE, is Chief Medical Director, Duke Children’s Hospital, Durham, North Carolina and CEO of Practicing Smarter.

Richard Ballard, is Assistant Operating Officer, Children’s Services, Duke University, Durham, North Carolina.

Richard Liekweg, is Chief Executive Officer at Durham Regional Hospital, Durham, North Carolina.

William Burton, is Director of Management Engineering at Duke University, Durham, North Carolina.

J Health Care Financ 2001;27(3):21–29
© 2001 Aspen Publishers, Inc.
Cost per case

Figure 1. Cost per case for children <18 years old is graphed versus fiscal year. There was a significant reduction in cost per case after implementing the scorecard methodology in FY 96. Before scorecard is depicted in solid, after scorecard in stippled.

Physicians and other clinical staff were the key players in the health care process. As revenues decreased and expenses increased, there was a shift—financial performance became the dominant force.

Since medicine is the most passionate service-based industry, clinical outcomes cannot be separated from financial performance. There is, however, an obvious paradox in this philosophy. No matter how effective the chief executive officer (CEO) and chief operating officer (COO) are, they can control only a portion of the components that drive the organization’s financial performance. The rest is largely dependent upon clinical practice patterns and not typical business processes. Physicians determine when the patient leaves the hospital and, therefore, the patient’s length of stay. In addition, they prescribe medicines, tests, and procedures that significantly impact cost and accept referrals that increase revenue. Nurses are also an important group to enfranchise because they are the main drivers of quality, and they represent a significant component of an organization’s labor costs.

The paradox is that while clinicians can dramatically affect financial performance, they are primarily motivated by the need to provide quality clinical care. To improve financial performance, administrators and clinicians must develop an alliance. This forced alliance can cause a gap between hospital administrators and clinicians. This gap can be viewed as either a conflict or an opportunity. Administrators and clinicians must bridge this gap with a performance management approach that communicates the value proposition to all stakeholders. This approach will link clinicians and administrators to a strategic vision and promote strategic control of the organization. To achieve these goals, administrators and clinicians must apply sound fundamental business principles while using clinical insight. They must develop an intelligent performance management system that aligns administrators and clinicians into a single platform. This platform must support an
integrated matrix that fosters the ability to communicate mission-critical information rapidly throughout the organization. The organization must learn how to identify the key drivers of their performance and implement initiatives to optimize them. This approach will provide health care organizations with the business and quality intelligence needed to successfully compete in the turbulent marketplace.

Translating the Vision—The Power of Information

In health care, there is a tremendous amount of data but very little useful information to make intelligent decisions. One reason is that there are several independent sources of data that are not linked, which makes it difficult to get the true picture of the organization’s performance. Integrating these data sources is essential. Delivering information to key stakeholders so that they can learn and make intelligent decisions is an essential step in creating knowledgeable stakeholders. While sharing information is a great opportunity to educate and empower staff, it also has risks. The information must be presented in a manner that fosters improvement, not finger pointing. All stakeholders, especially physicians, should be given information that is accurate, clear, appropriate for their level, and site specific to their individual performance.

This strategy forces groups to focus on their own performance and not be distracted by other departments. For example, physicians should be given information on their practice patterns and outcomes, but not on nursing productivity since they cannot effect change in this area. Nurses, however, should be focused on what they can control, such as nursing productivity and nursing-driven clinical outcomes. In this way, individuals are given the information they need to measure and improve their performance in an intelligent manner.

Bridging the Gap

Duke University Health System consists of three hospitals: (1) Duke University Hospital, a 1,000-bed facility; (2) Durham Regional Hospital, a 391-bed facility; and (3) Raleigh Community Hospital, a 230-bed facility. Duke Children’s Hospital, a 135-bed cluster within the Duke University facility, has approximately 6,000 inpatients and 30,000 outpatients each year, and employs 800 people. The gross revenue for Duke Children’s Hospital is $150 million.

In 1996, Duke Children’s Hospital developed an integrated scorecard that linked the business and quality clinical outcomes into a single platform. This approach was fundamental to our success—it promoted balance in the organization and aligned all disciplines around a focused strategic agenda. Kaplan and Norton have described the balanced scorecard approach in detail and have seen its effectiveness in more than 500 organizations, including almost 50 percent of the Fortune 1,000 companies.

The scorecard looks at four perspectives that are balanced to achieve desired outcomes: (1) financial, (2) customer, (3) learning and growth, and (4) internal business. The best way to understand the concept is to demonstrate through a specific example. For example, an organization’s financial performance could be improved by lowering their costs through staff reductions. However, if
the reduction in staff results in a decrease in the quality of care, the internal business perspective would demonstrate a low performance. This approach would not achieve the desired balanced objectives. Strategic control of the organization is achieved by developing strategies and initiatives that provide organizational balance across all perspectives. The balanced scorecard approach has been successful in many arenas, including outstanding success at Mobil and Southern Citrus. Mobil used the scorecard approach to increase cash flow from $-500M to $+700M, while reducing environmental incidents by 67 percent. Southern Citrus achieved a reduction in turnovers from 100 percent to 33 percent, while reducing costs by 30 percent. This type of success has been transferred into other organizations as well.

The balanced scorecard methodology, while an excellent long-term solution, may require time before it is embraced by the entire organization. Therefore, as an initial step, organizations may consider the rapid deployment of executive-level scorecards that allow strategic control of the organization. This approach provides the substrate to communicate the message and educate the entire team.

**Tool Kit for Building a Scorecard**

The leaders of the health care organization must develop a scorecard that is linked to the organization’s strategic agenda. The scorecard functions as the brain for the organization and provides the opportunity for learning, growth, and developing intelligence. Developing this scorecard should be accomplished in a short time frame, or team members will lose interest. The three steps of our proven rapid-fire approach are to: (1) get connected, (2) get results, and (3) get smarter (see Figure 3).

**Step 1: Establishing key linkages-get connected**

The primary goal is to quickly deliver an integrated, comprehensive scorecard that links the mission, strategy, objectives, targets, key performance indicators (KPIs), and initiatives across the organization (see Figure 4). Key stakeholders should collaborate in mapping measurement strategies and defining objectives. They need to identify the KPIs that drive the organization and link them to the goals and strategy, determining the sources of these data and the required reporting frequency.

**Practicing Smarter Approach:**

**Integrating Business Process Effectiveness with Quality Clinical Practice**

---

**Figure 3.** A systematic scorecard development requires integration of clinical and business principles. Duke University Medical Center's approach is outlined.
Using Technology to turn
Data into Information

- Financial
- Internal
- Customer
- Business
- Learning &
- Growth

Figure 4. The development of a scorecard requires systematic implementation and linkage of key metrics.

The scorecard is then aligned to the budget. It is essential to assign ownership of the KPIs to specific individuals to assure accountability. The deliverable is a linked scorecard that can support change and lets stakeholders diagnose opportunities for improvement by providing critical management information in a single, integrated, and consolidated source. This information can be shared rapidly throughout the organization.

The development of KPIs is a critical factor in successfully implementing the balanced scorecard. There are hundreds of metrics to consider, but only a few that drive a health care organization. Keep it simple! Health care organizations are wise to limit the amount of time spent determining key metrics, otherwise momentum will be lost and progress halted. Use our motto: “If you can’t measure it, don’t do it.”

Scorecards should address three vital areas:

1. Key performance indicators (KPIs). Clearly define KPIs that link the business and clinical aspects of health care.

2. Staff satisfaction. Physicians prescribe the care, nurses and allied health professionals deliver the care, patients receive the care, and the payers pay for the care. If any of these groups is dissatisfied with the organization’s performance, there will be discontent that can result in reduced quality. Most organizations routinely measure patient and payer satisfaction, but often disregard staff satisfaction. Physicians, nurses, and other allied health professionals drive many aspects of health care— their ongoing education and satisfaction must be measured and recognized, and their impact on quality of care validated.

3. Regulatory arena. Maintain a focus that assures compliance because health care is highly regulated. By developing a comprehensive and aligned performance improvement strategy, the scorecard should facilitate regulatory compliance as a collateral benefit of routine clinical practice. This can be achieved by linking initiatives to the overall strategy, fostering interdisciplinary collaboration, and demonstrating continuous improvement.

Step 2: Analyze performance
to—get results

In health care, the emphasis has been on the bottom line—and cuts in staff. This approach, while having an initial upswing, has a short life span and often results in reduced quality. Innovators need to focus on improving productivity by providing tools that teach staff how to improve their performance while enhancing quality. Other methods to manage costs and improve quality
will be identified as the scorecard information is evaluated. Determining what drives practice patterns and reducing variability can greatly reduce costs. Opportunities in pharmacy, laboratory, diagnostics, or supplies can be targeted for improvement initiatives. These multidisciplinary initiatives should be supported by technology and their outcomes carefully linked to KPIs.

Performance data are organized to provide an operational view as well as a patient process perspective of the children’s business. The goal is to create a link between the operational performance of an operating unit and the overall performance of the patient process. From the operational perspective, monthly productivity and cost information is compared to established targets. Trends of volume, target staffing levels, actual staffing levels, labor variances, and cost per patient day are routinely analyzed. This analysis allows the unit management to monitor performance and identify areas for improvement. From the patient process perspective, discharges are organized by diagnostic related groups (DRGs), with trends of volume, costs, revenue, and operating margin routinely analyzed. Once a patient population is identified for further study, additional information is provided at the physician and product level. This allows physicians to compare practice patterns and identify areas for improvement.

Organizations should also focus on increasing revenue as a primary initiative because the benefits of increasing revenues are high and the controversies low. For example, Durham Regional Hospital, a 391-bed hospital in the Duke Health System, focused on increasing their revenues by assuring appropriate registration of all patients, accurate coding and documentation, and timely billing and claims processing. The primary approach to claims verification was through telephone communication. This approach had several problems that resulted in daily notifications being delayed. These delays drove denials, accounting for 45 percent of all denials. To solve this problem, Durham Regional used a multidisciplinary approach and an increased reliance on technology. The case management staff, joining with verification specialists from the accounting department, developed a system to accelerate the process of notification and authorization through a fax and e-mail solution. To develop intelligence on individual payer specifics, this multidisciplinary team met with each payer to develop a seamless approach to claims submission that was tailored for each payer. This approach consisted of a systematic process for claims submission and a dedicated fax line for the payer so that transmission of patient notification could occur individually. Durham Regional streamlined their processes as well. They generated a payer-specific automatic report list for all patients admitted. These reports contained key specific identifying data that consisted of the patient’s date of birth, policy number, admitting diagnosis or complaint, type of service, and attending physician. The lists were automatically faxed each morning to the payer, who in turn faxed back the document with the notification number. This systematic approach increased the number of notifications per hour and decreased the minutes per notification at Durham Regional. In addition, the information generated from this process was used to contest any allegations from payers of failure to notify or authorize in a timely fashion. This
approach decreased Durham Regional’s total denials from a high of 15 percent to less than 1 percent.

When organizations are not performing intelligently, they live from crisis to crisis. Strategic thinking is absent and money is spent unwisely. Money and time are allocated to initiatives that are not linked to strategy and have little impact on organizational performance. Frequently, there is no direct link between strategy, initiatives, and key metrics and, therefore, no data to determine if the initiatives are successful. This lack of focus creates confusion, frustration, and redundancy. If the organization fails to achieve its goals, the mission and vision become blurred, staff become disconnected, and a crisis mentality develops. As the margin falls, the mission becomes threatened, and programs and services are targeted for elimination.

When organizations are performing intelligently, they focus on the key drivers of their business and invest in strategies to improve them. They develop metrics to measure and link organizational performance to these drivers. They learn and communicate what is and what is not working, and this knowledge transfer transforms the culture, creating a learning organization. The scorecard supports this effort to provide a framework that facilitates education and communication. In this way, feedback is delivered to the organization to improve performance and transfer knowledge.

The next step is to turbo-charge your scorecard by leveraging technology. Health care is the largest sector of the economy, yet less than 2 percent of expenses are earmarked for technology. Other industries devote 10 percent of expenses to this area.

Although health care organizations spend a tremendous amount of money taking care of patients, they spend little investing in their own health. In order to survive and take better care of patients, health care organizations need to enhance business process effectiveness by investing in technology that automates the scorecard and transforms tremendous amounts of data into useful information. The data should be reported and analyzed regularly to promote systematic evaluation of performance and move the organization from a “crisis intervention” mode to a “strategic solutions” approach. Automatic data collection and reporting allows an organization to transform its culture and present mission critical information to “everyone—everywhere.”

Step 3: Gaining knowledge and strategic control of your organization—getting smarter

Management information, tools, and solutions allow the organization to effectively operate with a strategic focus. Consistent, systematic review and revision of the scorecard allows the organization to transform itself into a learning center. Drill downs, modeling, and analysis uncover new strategies to improve business effectiveness and clinical quality. As opportunities for improvement are revealed, strategies are developed that require new ideas and approaches, resulting in the need to make new connections, get results, and get smarter. The process repeats itself, assuring continuous strategic improvement.

As new challenges are uncovered, new opportunities for improvement are recognized. The scorecard should be considered
dynamic and be evaluated on a routine basis. To achieve this goal, quarterly strategic reviews of the scorecard are necessary and should result in minor updates in strategy and KPIs. Major revisions in the organization’s mission, strategy, and objectives should occur on a yearly basis. How frequently the organization’s scorecard undergoes updates is an important concern. Too frequent revisions may cause the organization to fail to achieve important goals because a significant amount of time and energy is spent on optimizing the card and not achieving results. Too infrequent revisions results in a static card that fails to keep up with the organization’s changing goals and objectives.

The business and quality intelligence that develops from this methodology fosters strategic control in all perspectives and assures that the organization evolves to meet challenges. This performance management system supports the transfer of knowledge—clinicians and administrators learn about clinical and financial drivers and how they affect organizational performance.

**Advancing Margin and Mission**

By integrating the clinical and business aspects of health care at Duke Children’s Hospital, we achieved a significant improvement in all perspectives—financial, customer, learning and growth, and internal business. Our cost per case was reduced from $14,889 in FY96 to $10,500 for FY2000 (p < 0.01, ANOVA FY2000 vs. FY96) (refer to Figure 1), nearly a $30 million reduction in cost. In addition, our net margin improved from -$11 million in FY96 to +$4 million in FY2000 (p < 0.01) (refer to Figure 2). Before we started this performance management system, programs and services were slated for reduction or elimination. Now, strategic investments are being made that will assure the future success of Duke Children’s Hospital. Our patient satisfaction increased from 4.3 to 4.7 on a 5.0 scale, (p = 0.05) as did our referring physician satisfaction. The productivity on our nursing units increased from 71 percent in FY96 to 100 percent in FY2000. During the same period, staff satisfaction significantly increased from 1.5 to 4.0 on a 5.0 scale (p < 0.01, FY2000 vs. FY96). In addition, morbidity improved as our readmission rate fell from 7 percent in FY96 to 3 percent in FY2000. The health of our organization has dramatically improved since we implemented a scorecard methodology, and our mission has been advanced.

**Being Innovative in Health Care: No Mission→No Margin**

While dramatic changes are inevitable, developing a strategic focus and examining the business and quality of health care in a measurable and repeatable manner is each organization’s opportunity. Organizations need to bridge the gap between the financial and clinical drivers of health care, partnering with physician executives who can communicate the value proposition to both clinicians and administrators and provide the key link to a single strategic vision. To be successful, administrators and clinicians must be able to communicate and develop the brain for the organization: the integrated scorecard. This scorecard allows the organization to diagnose, treat, and perform preventive measures on the business and quality of health care.

By becoming healthier, organizations will be in a better position to excel at patient
care, increase staff and physician satisfaction, and provide an environment in which learning and growth are fostered. Individuals must be innovative, while utilizing performance management systems to unleash the information necessary to transform the industry and improve health care for all.

REFERENCE
