

**A relatively new concept in strategic management provides a way to balance quality and customer satisfaction with costs and long-range goals.**

## Balancing the Health Care Scorecard

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During the 21st century, successful health care management will depend on organizations and top executives balancing quality and customer satisfaction with adequate financing and long-range goals. Long past are the days of fee-for-service and indemnity insurance policies. Today's health care organizations must deal with managed care, government oversight, aging baby boomers, new technologies, and increasing pharmaceutical prices. In 1996, Robert S. Kaplan and David P. Norton wrote *The Balanced Scorecard* as an introduction to their management strategy for business in the information age. After being successfully implemented by AT&T, Intel, and 3M, the Balanced Scorecard finally has made its way into health care. This article explains how the Balanced Scorecard differs from other management strategies and cites application of this strategy in small and large health care organizations.

### Measuring quality and meeting expectations

Until the advent of Medicare in the mid-1960s, health care followed a simple business model. Trained professionals delivered most health care in a decentralized system; treatment was tailored to the specific patient and the specific situation. The trained professional was solely responsible for both the treatment outcome and the financial outcome (McLaughlin 1999). Physicians were revered for their knowledge, extensive training, and understanding of human disease. They set the performance standards and determined the fees. With the implementation of Medicare, and thus the inclusion of the federal government in the financial aspects of health care, health care's fundamental administration and quality expectations changed. Medicare demanded that each participating health care facility be certified by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and accept fee schedules established for each region in the nation.

During the 1970s and 1980s, for participating health care facilities, Medicare instituted requirements to implement quality-management practices. The federal government encouraged health care organizations to define the value of their services as measurable economic products. In past years, health care analysts based their assessment of value on the assumption that *value* equals *quality* divided by *cost* (Lighter 2000). In an effort to increase the value of health care, facilities often downsized and/or eliminated unprofitable services — thus value was increased in the short-

term by decreasing the denominator. Nevertheless, it soon became evident that increasing quality, or the numerator, would mean achieving the long-term goal of increasing value. Improving quality in the health care industry became the focus not only of Medicare, JCAHO, boards of directors, hospital administrators, and financial directors, but also insurance companies, employers, and patients. To determine value, it became apparent that quality standards must be established. Yet before quality standards can be established, quality has to be defined.

Several business-management models based on the scientific management models of the early 1900s were proposed as means to measure and standardize industry quality, and eventually health care service quality. An early leader in the area of measuring and managing quality was Walter Shewart, a statistician employed at Bell Laboratories. He is credited with the introduction of the control chart and the Plan, Do, Check, Act (PDCA) cycle. Shewart wrote that stating a price for a product or service, without an understanding of quality, was meaningless. He also taught that decisions based on price alone were almost certain to be more expensive than necessary and would lead to undesirable results (McLaughlin 1999).

During the 1980s, Motorola instituted an updated scientific management model emphasizing statistical analysis, titled *Six Sigma*. Derived from the Greek letter *sigma*, used by statisticians to define standard deviation from the established norm, Six Sigma "targets root causes of varia-

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tions” and solves problems using strict statistical analysis. At 1.5 sigma, the number of defects can be 500,000/million, but at 6.0 sigma defects (errors) are almost nonexistent at approximately 3.4/million (Cherry 2000). Although extremely successful in manufacturing and engineering, the Six Sigma model is in its infancy as a health care management tool. Most commonly used in the analysis of both process variability and costs in pharmacy, radiology, laboratory, and billing/coding, Six Sigma excels where historical and current statistics are available in health care administration.

W. Edwards Deming probably is most well known as the proponent of Total Quality Management (TQM). Although he is often cited as creator of the PDCA cycle, he credits Shewart as its author.

Deming expanded on the PDCA cycle and established his 14-point program of recommendations, which was created for management to improve quality. After many failed attempts to implement TQM in the United States, Deming was invited in 1950 to help revitalize Japanese national industries after the devastation of World War II.

His incredible success in the Japanese automobile industry forced American industry to reconsider his program. He believed that management had final responsibility for quality and that implementation of his program must be based on a “top-down, organization-wide commitment” (McLaughlin 1999).

Japanese industry put Deming’s TQM into action and slowly began to refine and adapt the strategies and processes of continuous quality improvement (CQI) to individual organizations. This was an especially important building block for achieving TQM in health care, because each organization frequently has specific clinical processes that make implementation of CQI difficult. In the mid-1980s, several health care orga-

nizations began experimenting with TQM/CQI in an effort to define, control, and increase quality. Hospital Corp. of America (HCA) used an expanded Deming approach, called FOCUS-PDCA, as the basis of the initial CQI effort. The FOCUS-PDCA process initially gave HCA’s staff a common language and a system for beginning the continuous quality improvement.

**Creating a new strategy**

In 1990, Robert Kaplan, PhD, a professor chair at Harvard Business School, and David Norton, DBA, a cofounder of the Nolan Norton Institute, developed a new approach to strategic management, which they called the Balanced Scorecard (BSC) — from a one-year study of private-sector companies. Although previous theories had emphasized quality management and CQI, Kaplan and Norton provided a system that “balances the financial perspective with ... practices, outcomes, quality, value, and costs” (Castaneda-Mendez 1999). The financial accounting model used in past decades emphasized historical information without considering an organization’s intangible and intellectual assets. This was acceptable during the industrial age; in today’s information age, however, organizations must not only document the past, but also project “future value through investment in customers, suppliers, employees, processes, technology, and innovation” (Kaplan 1996). The BSC combines financial and nonfinancial performance measurement systems and educates employees at all levels of the organization. Although it is a relatively new concept in strategic management, health care organizations are beginning to implement this program.

“The Balanced Scorecard translates mission and strategy into objectives and measures that are organized into four different perspectives: financial, customer, internal business processes,

and learning and growth” (Kaplan 1996). The Balanced Scorecard gives management a framework or language in which to communicate the organization’s mission and strategy, while using measurement to inspire employees to achievement of specified outcomes. BSC measurement is not used to control behavior or evaluate past performance. It is not used to keep individuals or units under control and in compliance with predetermined duties or processes. It is used to educate and to facilitate the business strategy and achievement of common goals. Through this integration, management will identify and respond to customer needs and initiate quality improvement.

**Establishing financial objectives**

The financial perspective of the BSC is similar to that of several other management strategies. Financial performance is measured easily, due to the availability of both historical and current economic data. Analyses of operating income, cash flow, return on capital, etc., yield a snapshot of the organization’s past and present bottom-line. Further, recognizing that the business cycle comprises three stages (growth, sustain, harvest), an organization must determine into which stage it falls (Lighter 2000). By identifying an organization’s stage in the business cycle, analyzing historical financial data, and understanding goals, management is able to determine if specific financial changes would better position the organization in the future.

**Targeting the customer**

“In the customer perspective of the BSC, managers identify the customer and market segments in which the business unit will compete, and the measures of the business unit’s performance in these targeted segments” (Kaplan 1996). The measures used in targeting these areas often are customer satisfaction, customer retention and acquisition, customer prof-

itability, and market share. In the ever-changing world of health care, identifying the customer becomes more complex each year. Before the advent of Medicare, health care facilities' customers were only patients and physicians. Today the term *customer* encompasses various managed care organizations, third-party payers, physician organizations, patients, communities, and state and federal governments. Customer retention often is based on customer satisfaction. Fortunately, many customer-satisfaction surveys are available for management to use in determining where satisfaction can be improved.

**Measuring internal business processes**

The BSC requires executives to identify and measure critical internal processes in the internal business perspective. Management is required to target processes in which continued excellence has an impact on customer satisfaction and is instrumental in achieving financial objectives. The BSC differs from traditional strategies used to monitor and improve established business processes by forcing the organization to identify entirely new processes needed to meet customer and financial objectives and the incorporation into the short-range operations cycle. Reengineering and/or initializing new processes in new departments may be required to meet the goals of the organization (Kaplan 1996).

**Determining sources of learning and growth**

The fourth and final perspective of the BSC relates to learning and growth. While the "customer and internal-business process perspectives identify the factors most critical for current and future success" (Kaplan 1996), the learning and growth perspective aids the organization in determining what capabilities will be required to meet the value demands of future customers and shareholders.

Kaplan identifies three principal sources of organizational learning and growth: people, systems, and organizational procedures. Often, "businesses will be forced to invest in reskilling employees, enhancing information technology and systems, and aligning organization procedure and routines" (Kaplan 1996).

**Implementing the Balanced Scorecard**

In the *Harvard Business Review*, the chief medical director at Duke Children's Hospital (DCH), in Durham, N.C., described one of the first successful implementations of the BSC in a large health care facility. In 1997, the average length of stay at DCH was eight days, or 20 percent longer than the national average. The average per-patient cost at DCH was \$15,000 (more money than was being reimbursed); consequently, the hospital was faced with a projected \$7 million increase in annual losses within four years. It was apparent that drastic measures had to be initiated quickly to preserve financial stability. The BSC was identified as the one management strategy that linked the four areas — finance, customer satisfaction, business processes, and staff satisfaction — and appeared to be the answer regarding both short- and long-term improvements.

After defining the organization's management requirements for meeting goals, the medical director began the implementation of the BSC in the pediatric intensive care unit (PICU). Within six months, the PICU reduced the cost per case by 12 percent and increased patient satisfaction by 8 percent. Reorganization, new protocols, and an emphasis on "multidisciplinary teams focused on a particular illness or disease" were credited for the improvements (Meliones 2000). By 2000, the BSC was evident throughout DCH, and the hospital successfully lowered its cost per case by \$5,000, leading to a net gain of \$4 million.

Peel Memorial Hospital (PMH) in Ontario offers another successful working example of the BSC. PMH has held universal health care as a cornerstone of social policy for many years. In the past, generous government funding allowed Canadian health care facilities to provide excellent service and quality. Recently, however, increasing health care costs have changed government funding, requiring providers to be more financially accountable. After beginning an extensive CQI training program in 1994, PMH became an enthusiastic supporter of the BSC in 1996. Citing today's statistics as proof that the BSC is a successful "performance measurement model" (Harber 1998), PMH reports that patient-satisfaction levels have risen from 89 percent to 95 percent, staff satisfaction survey participation has risen from 33 percent to 75 percent, a better understanding of where to invest time and money in learning objectives has been achieved, and the organization has achieved the ability to relate mission and vision statements to performance.

Administrators at Hudson River Psychiatric Center (HRPC) in Poughkeepsie, N.Y., decided in 2000 that the introduction of managed behavioral care and the increasing emphasis on the JCAHO hospital standards necessitated development of a new management model. After extensive analysis and investigation, HRPC decided that the BSC would assist the organization by linking goals and objectives to measurement. After defining the primary areas of measurement as customer relations, finance, technology, research, and quality services, James Regan, PhD, CEO of HRPC, worked closely with his staff to develop a strategic plan that targeted staff training, inpatient services reorganization, performance measures, and stakeholder awareness. After the strategic plan was established, the BSC had 20 indicators organized into four areas labeled fi-

nance, customer, innovation, and learning and internal business. Each area had specific measurements (American Health Consultants 2000) that were reported quarterly. After six quarters, HRPC has documented an overall improvement rate of 10 percent. Specific BSC areas of improvement include a 13 percent increase for the financial perspective, a 5 percent increase for the customer perspective, a 15 percent increase for internal business, and a 9 percent increase in the area of innovation and learning. The management leaders of HRPC concluded: "The scorecard has proven to be an effective tool in focusing the organization on achieving goals and objectives. The outcomes from the performance-improvement activities linked to the scorecard represented significant improvements and, in some cases, cost savings."

Another successful application of the BSC can be found at West Park Healthcare Centre (WPHC), in Toronto — a facility that provides rehabilitation and complex continuing and/or long-term care. In 1997, WPHC began its work with the BSC using the four areas of client satisfaction; learning and growth; finance; and quality and safety. Using benchmarks established by the Conference Board of Canada's "Measuring Up" survey, the areas were rated "needs improvement," "good," "very good," or "excellent." Reflecting feedback from patients, employees, and members of the community, the 1999 Community Report Card indicated that all areas had improved in the past two years except learning and growth. Client satisfaction and quality and safety were rated "good," finance was rated "very good," and learning and growth was rated "needs improvement" (West Park Healthcare Centre 2000). Though these results were less than optimal, the success of the BSC is found in its capacity to provide specific information on all areas targeted by the organization. Analysis of the learning-and-growth area of the BSC

indicated that physician satisfaction and team effectiveness were areas in need of attention. WPHC immediately initiated efforts to increase ratings in both areas by forming a medical advisory committee to address physician satisfaction and by implementing several programs addressing team effectiveness. A staff education fund was created, and several research fellowships were established for employees. These actions point to a major advantage of the BSC — its ability to educate the health care organization about areas needing improvement.

The BSC is just as effective in a smaller facility or a medical practice. Application of the BSC to an ophthalmology practice is described in *Ophthalmology Times*. Noting that financial management is often the only management strategy practiced by small medical enterprises, the article points out that historical information is important but does not promote a strategic vision. The BSC analyzes the mission and vision of the business in relation to the four perspectives of finance, customer satisfaction, business processes, and employee satisfaction. Goals are established in each of the four areas, and "performance measures are created that track progress toward goals" (Freeman 2001).

In a study of the BSC for behavioral health care organizations, Jose Santiago, MD, cited three advantages of BSC. First BSC gives patients, providers, government agencies, and insurance companies the ability to make informed decisions about service quality by the analysis of clinical outcomes, price, and satisfaction. A second advantage of the BSC is the ability to build marketing strategies on the results that it yields. The "providers' capability and competency to meet their needs and expectations" will be provided in published results allowing stakeholders to make educated choices. The final advantage of the BSC is its use as a strate-

gic planning tool. The linking of the health care organization's mission, values, and goals to specific clinical and administrative areas will allow employees to monitor their performance effectively (Santiago 1999).

### Achieving balance

Inamdar and colleagues documented the responses of health care executives, in nine provider organizations, who recently implemented the BSC. Executives revealed that all but one provider organization had established a mission, vision, and strategy before starting the BSC application. The motivation for adopting the BSC was seen as a "proactive response to external forces, including financial pressure, competition, consumerism, industry consolidation, regulatory reporting, information management, and new technology" (Inamdar 2002). The executives cited the cause-and-effect links between the four perspectives of the BSC as a major difference between the BSC and previous measurement systems. The provider organizations learn that tradeoffs must be made among cost, quality, and access before balance is achieved. Previous systems narrowly analyzed functions inside the organization without relating those functions to the mission, vision, or strategy. In eight of the nine provider organizations, the BSC was initiated at the upper-management level. Noting that this implementation cannot be done quickly, executives were required to provide many hours convincing lower-level employees of the benefits of the BSC.

Many challenges and barriers were encountered along the path to successful use of the BSC. From gaining initial approval to start the program, and obtaining executive time and commitment, to gaining the employees' commitment and keeping the scorecard simple, the executives were challenged throughout the implementation process. One of the greatest challenges during this time was

establishing performance measures throughout the organization. Employee performance was being measured, sometimes for the first time, and employees feared what the results would show. This fear was exacerbated in cases where performance measurement was linked to compensation.

Although the path to successfully implementing the BSC was difficult, many benefits noted by the executives exceeded the anticipated level. Executives cited increased management credibility with board members or trustees, because areas of accountability were clearer. The four perspectives of the BSC provided a decision-making framework, while the BSC, in general, "linked strategy with resource allocation ... and supported greater accountability" (Inamdar 2002). Above all, the executives stated that the BSC was a means of clarifying and gaining organization-wide consensus on an overall strategy for achievement of goals.

Kaplan and Norton aptly begin their original book, entitled *The Balanced Scorecard* (1996), with a telling conversation between an airline passenger and the pilot of an aircraft that has only a single instrument in the cockpit.

Q: I'm surprised to see you operating the plane with only a single instrument. What does it measure?

A: Airspeed. I'm really working on airspeed this flight.

Q: That's good. Airspeed certainly seems important. But what about altitude? Wouldn't an altimeter be helpful?

A: I worked on altitude for the last few flights, and I've gotten pretty good on it. Now I have to concentrate on proper air speed.

Q: But I notice you don't even have a fuel gauge. Wouldn't that be useful?

A: You're right; fuel is significant, but I can't concentrate on doing

too many things well at the same time. So on this flight, I'm focusing on air speed. Once I get to be excellent at air speed, as well as altitude, I intend to concentrate on fuel consumption on the next set of flights.

### Conclusion

Health care management needs a variety of effective tools to navigate toward organizational goals. Kaplan and Norton's BSC provides a framework for performance measurement in four specific areas — financial, customer, internal processes, and learning/growth. The health care environment has changed dramatically in the past 40 years. Before the passage of federal Medicare legislation in 1965, health care was a fee-for-service business. Today, for-profit and not-for-profit health care organizations are being forced to enter the information age due to changing demographics, increasing competition, higher customer expectations, and greater government pressure. The BSC not only provides a framework for establishing performance measurement goals but also incorporates continued quality improvement throughout the organization.

Past business-management models have focused on finances, due to ease of data analysis and documentation, or have targeted quality improvements only. The BSC combines these approaches with the view that all aspects of an organization are related. When attention is placed on a specific area, process, or concept, even temporarily, the "plane may be in danger of crashing." One often hears from health care managers that if something isn't broken, it doesn't need fixing. Yet, health care has long been broken. New management strategies are needed that not only solve problems but also anticipate change.

Kaplan and Norton's Balanced Scorecard is used successfully by many business and health care facilities.

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