



# Developing a Patient Safety Plan

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## Abstract

Many healthcare organizations are focused on the development of a strategic plan to enhance patient safety. The challenge is creating a plan that focuses on patient safety outcomes, integrating the multitude of internal and external drivers of patient safety, aligning improvement initiatives to create synergy and providing a framework for meaningful measurement of intermediate and long-term results while remaining consistent with an organizational mission, vision and strategic goals. This strategy-focused approach recognizes that patient safety initiatives completed in isolation will not provide consistent progress toward a goal, and that a balanced approach is required that includes the development and systematic execution of bundles of related initiatives.

This article outlines the process used by Hamilton Health Sciences in adopting Kaplan and Norton's strategy map methodology underpinned by their balanced scorecard framework to create a comprehensive multi-year plan for patient safety that integrates best practice literature from patient safety, quality and organizational development.

## Background

Since the releases of the Institute of Medicine's report *To Err Is Human* (Kohn et al. 1999) and the Canadian Adverse Events Study (Baker et al. 2004), there has been a growing emphasis on patient safety with a resulting deluge of literature related to patient safety processes, standards, goals and practices. As well, organizations, such as the Canadian Council on Health Services Accreditation (CCHSA), the Canadian Patient Safety Institute, Safer Healthcare Now!, the Institute for Healthcare Improvement, the Institutes for Safe Medication Practices, the National Patient Safety Foundation and the Joint Commission on Accreditation of Healthcare Organizations, have suggested embracing specific practices to successfully enhance patient safety. While healthcare organizations are undoubtedly focused on the need to develop a strategic plan to address patient safety, the challenge becomes creating a plan that focuses on patient safety outcomes, integrating the multitude of internal and external drivers of patient safety, aligning improvement initiatives to create synergy and providing a framework for meaningful measurement of intermediate and long term results while remaining consistent with an organizational mission, vision and strategic goals.

“An organization’s strategy describes how it intends to create value for its shareholders, customers and citizens” (Kaplan and Norton 2004: 4). Kaplan and Norton recommend using a strategy map to create focus and alignment, enabling staff to clearly see the linkages of the strategy to the goal and vision. “A strategy map provides a visual representation of the cause and effect relationships among the components of an organization’s strategy” and makes the links between performance drivers and outcomes explicit (Kaplan and Norton 2004: 9). While there are many credible tools that use performance measurement to drive organizational improvement, Hamilton Health Sciences (HHS) chose the Kaplan and Norton balanced scorecard and strategy map framework to develop the patient safety plan. The application of these management tools effectively aligns processes, people and technology to the outcomes to be achieved and results in a balance between outcome measures (financial and customer perspectives) and performance drivers (internal processes and learning and growth perspectives). These tools help translate strategy into action by identifying key processes and establishing a balance of key measures within the four quadrants of outcome and performance drivers previously noted. This strategy-focused approach recognizes that patient safety initiatives completed in isolation do not provide consistent progress to the goal; instead, a balanced approach is required.

**The patient safety plan was intended to help achieve the HHS patient safety goal of “zero preventable deaths in four years (2010)”; it was aligned with the organization’s mission, vision and values.**

### **Objective of the Development of a Patient Safety Plan**

The patient safety plan was intended to help achieve the HHS patient safety goal of “zero preventable deaths in four years (2010)”; it was aligned with the organization’s mission, vision and values. The plan incorporated recommended strategies, practices and processes focused on achieving safer care for patients, and it addressed organization development and learning needs necessary to achieve and sustain results.

### **Setting**

HHS is a four-site tertiary care facility with five distinct hospitals and a cancer centre. The patient safety plan was developed by the Organizational Effectiveness team, which was composed of patient safety, quality and organizational development specialists.

### **Process**

The Organizational Effectiveness team began with an extensive

review of the current best practice literature related to patient safety, quality and organizational development and a scan of internal and external standards and expectations for patient safety in hospitals. The purpose of the review was to determine the current reality of patient safety at HHS, assessing work in progress, current structures and frameworks, human resources to support the work and the results of patient safety culture assessments. Prior to the development of the patient safety plan, HHS had established patient safety as a priority, articulated the goal of zero preventable deaths, developed a patient safety model and initiated over a dozen organization-wide and hundreds of unit-level improvement initiatives. Systems that strongly supported the patient safety work were also well established, including a Senior Leadership team committed to the patient safety goal, a Patient Safety Steering team, more than 300 patient safety champions at the unit and area levels and dedicated patient safety, quality and patient relations/risk management specialists.

Once consensus was reached on the current reality, the group brainstormed how the organization would be once the goal of zero preventable deaths had been reached. The shared attributes that described the organization in the future were identified as a “high reliability learning organization” and provided the content for moving forward in the development of the patient safety plan.

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Organization leaders believed that to support and enable successful patient safety initiatives (internal processes), there needed to be a significant foundation of patient safety culture and quality improvement knowledge and application (learning and growth). To achieve the patient safety plan, HHS needed to shape the workforce and build capacity to meet the current and future needs; this would require significant sustainable change at many levels. By applying the balanced scorecard, the organization could develop a plan that would enable the achievement of the desired patient care outcomes, ensure financial stewardship and achieve a balance between outcome measures and performance drivers.

### **The Balanced Scorecard and Strategy Map**

The first step was to create the focus for the strategy map by defining the overall goal as *zero preventable deaths in four years*. Once the focus was determined, the Organizational Effectiveness team created the strategy map for achieving the patient safety goal using the four perspectives of the balanced scorecard. The

following outlines the four perspectives of the balanced scorecard as applied to the achievement of the patient safety goal at HHS (Figure 1).

## Outcome Measures

### The Customer

The key organizational question related to the customer perspective using Kaplan and Norton's (1996) balanced scorecard was, "What would patients and families see or perceive in an organization that had zero preventable deaths?" The outcomes for patient safety from the patient's perspective included no harm or adverse events, patient- and family-centred care and a perception of a safe and clean environment. The primary mission at HHS is to provide high-quality service and safe care to the patients, families and communities we serve. Meeting this obligation requires a focus on the outcomes within this perspective that are monitored and measured.

### Finances

The key question related to financial outcomes was, "How would HHS be viewed by funders when zero preventable deaths had been achieved?" There was a shared belief that the internal process improvements in clinical and service operations, supported by the necessary learning and development within the organization, would have a direct relationship to the financial performance of HHS and have an impact on the funds raised by the foundation. The key to measuring these outcomes was to "connect the dots" among components of the strategy with financial measures.

## Performance Drivers

### Internal Processes

The first performance driver of the balanced scorecard is internal processes, that is, the processes at which HHS must excel to meet "customer expectations" of patient safety. These include the critical processes that contribute to the articulated outcomes of the customer perspective and the hospital accountability agreements, performance management expectations and the external requirements of agencies such as CCHSA. An extensive number of processes were identified from the literature and external agencies using an affinity diagram; six categories or bundles of internal processes were identified including infection control practices (e.g., preventing surgical site infections), medication practices (e.g., pharmacy automation), proven best practices (e.g., rapid response teams), patient safety communication practices (e.g., transfer of accountability), team process and model (e.g., simulation) and patient involvement (e.g., partnering with patients).

To ensure sustainability of these internal processes, changes need to be embedded into the organization's design; that is, its strategy, technology, structure (role accountabilities and

department design), measurement systems and human resource systems (competencies and behaviours) (Cummings and Worley 2001).

### Learning and Growth

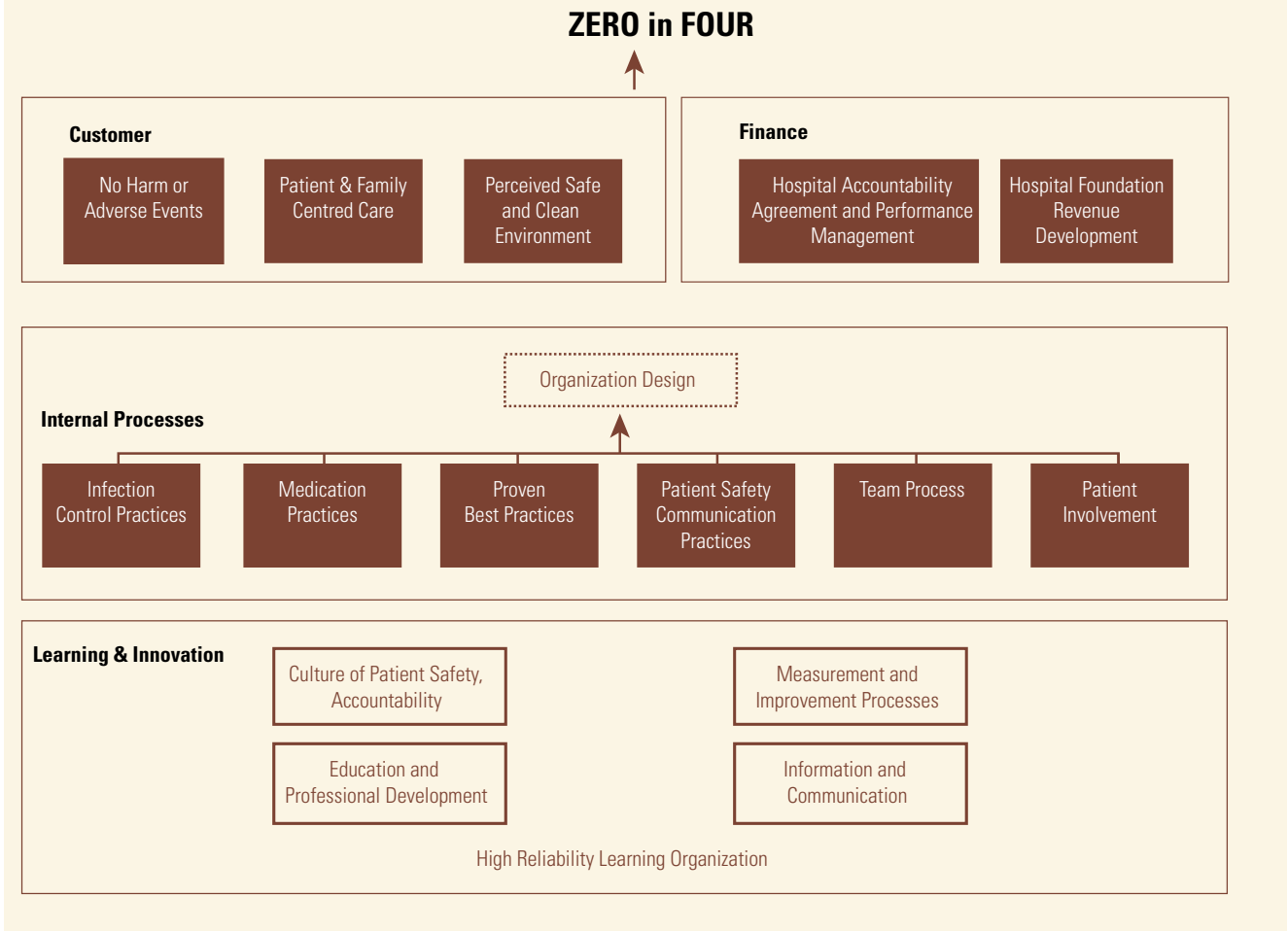
The final perspective of the balanced scorecard – learning and growth – addresses how the organization will sustain its ability to change and improve (Kaplan and Norton 1996). In other words, it includes the key processes required for learning and development of the organization to achieve improvements in patient safety and quality. In alignment with the HHS values, this part of the strategy map was renamed "learning and innovation." Two critical aspects underpinned the learning and innovation of the organization required to achieve the patient safety goal: the HHS Patient Safety Model and the vision of a high reliability learning organization.

A learning organization "tries to make a working reality of such desirable attributes as flexibility, teamwork, continuous learning, employee participation and development" (Mabey and Salaman 1995, cited in Garavan 1997: 18). This is similar to high reliability organizations "where individuals can communicate openly about concerns, and design systems that make it difficult for failures to occur. Effective communication, teamwork and shared learning are inherent properties of these organizations" (Leonard et al. 2004: 16). The initiatives and categories of this perspective were categorized within the four cornerstones of the HHS Patient Safety Model. The components of this part of the plan included quality improvement processes and tools, education and training related to patient safety, integration and management of data and information and organizational culture.

## Indicators to Monitor Progress toward the Goal

The patient safety strategy map provides a foundation to select a core set of quality and patient safety performance indicators for the scorecard. Examples of core indicators include process and outcome indicators from specific initiatives as well as the Hospital Standardized Mortality Ratio or infection control measures, such as rates for *Clostridium difficile*. Indicators such as these identify the need for and drive continuous improvement toward the achievement of the quality and patient safety goals. Measurement of key indicators is required to set goals and measure achievement; these measurements also provide a visible scorecard to monitor performance levels and assist with prioritization of quality initiatives. Dashboards (succinct visual displays of data to monitor quality improvement) are being developed that will make data measures accessible, visible and meaningful to users and provide a mechanism as performance tools.

Once the balanced scorecard of concrete performance indicators and measures has been derived from the strategy map and performance has been monitored, the cause-and-effect relation-

**Figure 1. Hamilton Health Sciences patient safety strategy map**

ships of the strategy map can be analyzed to inform chosen strategies. The strategy map framework and the balanced scorecard performance measurement methodology offer an effective means to manage human resources and information-capital development and deployment.

### The Patient Safety Plan

The four-year patient safety plan includes the strategy map and details of the specific initiatives included within the six bundles of internal processes. The plan also includes the sequencing of all the initiatives within the four balanced scorecard perspectives over a four-year period. The actual selection of initiatives to be undertaken each year is based on organizational priorities, current initiatives and the need to adhere with CCHSA required organizational practices for our accreditation in May 2008. The initiatives within the learning and innovation perspective were sequenced in the four-year plan to ensure that they would be

addressed prior to, or in conjunction with, the organization embarking on specific internal process improvement initiatives. The completed patient safety plan identified 59 initiatives categorized into bundles of strategies within the balanced scorecard perspectives. Each initiative had clearly defined metrics, which would be reported on a regular basis to the Patient Safety Steering team. The 59 initiatives were presented in a graphic format that allowed for a visual perspective of how the initiatives align and overlap as well as the timing of the initiatives over four years.

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### Lessons Learned

Four key lessons were learned in the development of the patient safety plan. Firstly, the development of a strategy map and a comprehensive patient safety plan requires a significant initial commitment of time and expert resources. However, its hope is that the future benefits will provide exceptional value. Secondly, flexibility and adaptability are essential. The plan must allow for revisions to meet internal and external constraints and drivers as they become apparent. There needs to be commitment to evaluate and update the plan yearly based on these new internal and external drivers and with consideration of the organizational capacity.

The third lesson includes assessing the demands of other organizational initiatives (unrelated to patient safety) for resources such as education, information technology and decision support.

Finally, it is important that the plan accounts for the impact and finite capacity for change at a unit level and includes reserve capacity to support and sustain ongoing issues of patient safety that are raised through occurrence reporting, patient safety leadership walkarounds and root-cause analysis of sentinel events.

### Conclusion

The Kaplan and Norton balanced scorecard and strategy map framework offer an effective method to plan strategically for patient safety and allow for an easy-to-understand visually formatted presentation of the plan that depicts the cause-and-effect relationships of patient safety strategies. It provides alignment with the organizational mission, vision and values with a clearly articulated goal, and provides a balanced approach in terms of the perspectives of the balanced scorecard and the components of the HHS Patient Safety Model. **HQ**

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