

A Review of the Use of the Balanced Scorecard in Healthcare



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The review is based on published and unpublished papers and reports from 1991 to 2011. Besides information on some of the current challenges associated with healthcare management and how the Balanced Scorecard can be used to help address these, it also includes sections on critical success factors, main learnings and several case studies of successful implementation. The review does not take a comprehensive or rigorous academic approach but is more designed to provide some insights from the literature that may be useful to those seeking to learn from the experiences of others in implementing the Balanced Scorecard in healthcare. While the situation of each organisation is unique, there are some general principles and learnings that may be important for a range of healthcare providers.

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1. Introduction

The first article on the Balanced Scorecard was published in 1992 by Kaplan and Norton (Kaplan and Norton, 1992). Since then, use of the Balanced Scorecard has grown dramatically as a key strategic management system and is now widely recognised internationally. It is used in private, not-for-profit and public sector organisations, of all sizes and types. For example, in the Bain and Company 2008 global survey of 1,430 international executives from companies in a broad range of industries, it was found that the Balanced Scorecard was the sixth most used of 25 management tools (Rigby and Bilodeau, 2009). The same survey showed it had the eighth highest satisfaction rating (3.83/5.00) and that it was used by around 50% or more of surveyed companies in all major world regions. Interestingly, the highest levels of satisfaction were in healthcare. It has also been quoted as being one of the most important management ideas in the last seventy-five years by the Harvard Business Review (Meyer, 2003).

This review focuses on the use of the Balanced Scorecard in the healthcare sector and draws on the 20 years of published literature to December 2011. Papers examined were sourced from a search of Google Scholar as well as Thomson Reuters (formerly ISI) Web of Knowledge¹. With the former, there were 6,300 documents where Balanced Scorecard was associated with healthcare or hospital or community health. When the search was restricted to these terms being in a title, there were 93 documents. With the Web of Knowledge, there were 87 documents where Balanced Scorecard was associated with healthcare or hospital or community health in a document topic. Of these 87 documents, 65 were articles, 14 from proceedings (for example, conferences), with the remainder being reviews (3), editorial material or meeting abstracts. The earliest was published in 1996 with 60 (69%) published between January 2005 and December 2011. The review focuses on documents identified in these two sets (Google Scholar and Web of Knowledge) complemented by health examples of Balanced Scorecard implementation found elsewhere through other internet searches. Any relevant new cited documents were also included in the review. While some important papers may have been missed, it is assumed that those examined contained the main findings to date.

This review does not take a comprehensive or rigorous academic approach but is more designed to provide some insights from the literature that may be useful to those seeking to learn from the experiences of others in implementing the Balanced Scorecard in healthcare. While the situation of each organisation is unique, there are some general principles and learnings that may be important for a range of healthcare providers.

Interestingly, in a recent comprehensive review of 309 papers published on the Balanced Scorecard², Banchieri et al (2011) found that of the 161 articles that specified the sector in their abstract or title, 53 (33%) applied to the healthcare sector. They suggest that more articles have been published in healthcare because many of the authors are medical doctors, many of whom are used to research and publishing, with 40 of the 53 articles being in medical journals. This was followed by the public sector, which accounted for 18% of the papers and the education sector with 11%.

¹ Web of Science® provides researchers, administrators, faculty, and students with quick, powerful access to the world's leading citation databases. Authoritative, multidisciplinary content covers over 12,000 of the highest impact journals worldwide, including Open Access journals and over 150,000 conference proceedings.

² Based on 309 papers in journals in the ISI database. Of these, 77% (239) were empirical studies.

2. Healthcare Delivery and the Balanced Scorecard

It is widely recognised that effective healthcare delivery involves providing high quality patient-centred care that is safe and evidence-based. Achieving this is a major challenge for health systems throughout the world.

Most people involved in implementing the Balanced Scorecard in the healthcare sector would say that while there are many common elements compared with implementation in other sectors, there are some quite unique challenges in health. This is not surprising as it is acknowledged that healthcare is one of the most, if not the most, complex industry³.

'The health system is immense and complex change in the health system is subject to a linked chain of effect that connects individual patients, communities and clinicians with small, naturally occurring front line units, with countless large and small host organizations all of which exists in a modulating policy, legal, social, financial and regulatory environment. Oversimplification of the health system is as common as it is foolhardy.' (Nelson et al, 2001, p18)

Depending on one's unique context, some of the challenges may include:

- An extremely diverse range of key stakeholders including patients and their carers / families, communities, visiting medical officers, staff, regulatory bodies, state and national health departments as well as a range of other government departments (for example, education and community services), boards, universities and shareholders (for-profit)
- Ensuring that the finite resources available in an environment of rapidly growing costs (for example, new high cost medical technologies and medicines), are allocated equitably, and used effectively and efficiently for maximum whole-of-community benefit. The rate of increase in health costs, other than wages, are usually well above costs for other industries. For example, health expenditure in Australia, as a proportion of Gross Domestic Product rose from 7.9% in 1999/2000 to 9.4% in 2009/10, well above the level of inflation.
- Increased demands from funding bodies (for example, government) for improved efficiencies at the same time as improved quality of care and patient outcomes.
- Increased demand for limited health care services with population growth and ageing as well as the changing nature of the burden of disease - for example, increased prevalence of some chronic diseases such as Type II diabetes and their associated comorbidities.
- Getting the balance right between resource allocation to the longer term benefits from investing in health promotion and disease prevention alongside the delivery of services to those requiring them in the short term, often urgently
- Increasing expectations and knowledge of patients. This is often gained from the internet where there is variability of information, a significant amount of which is not evidence-based.
- The journey of the main customer, the 'patient', through the health system can be convoluted and unclear with sometimes poor interfaces between the different phases of care including gaps in communication of critical information. This can occur within the one hospital (for example, the transfer of care from the emergency department to the operating theatre and then to a surgical ward) or between one organisation and another (for example, from a public hospital to a community based service managed by a different organisation).

³ This would particularly apply to the public health sector as it has been acknowledged that public sector organisations are inherently complex and present the greatest challenge of any sector for effective performance management (Marr and Creelman, 2011). Two reasons proposed for this are: (i) performance is seldom confined to a single, formal organisation, and (ii) performance management often takes place in an adversarial structure with consensus building being critical.

- In some medical specialties and sub-specialties, as well as other clinical disciplines, there are major shortages of qualified staff. There are also significant issues with ageing of the health workforce. Both these challenges are accentuated in rural and remote areas.
- Developing and maintaining strong working relationships between medical staff, especially Visiting Medical Officers, and health service management. Medical staff may have some degree of professional autonomy being part of a self-regulating profession.
- Challenge of implementing processes (for example, clinical pathways, hand washing) consistently across a large but extremely diverse organisation. For example, a regional health service may be made up of over 500 interdependent teams, both clinical and support services.
- Health services have traditionally collected large amounts of data and information, both clinical and non-clinical. However, this data is often in separate data bases that are not integrated or able 'to talk with each other'. Furthermore, the data is often 'locked away' and not used to inform decision making. For example, an audit in one Australian health organisation uncovered the existence of over 200 separate databases including many legacy systems that few knew about and which were not being used to improve care.

In the hands of an innovative and skilled management team, the use of the Balanced Scorecard as one of their core management approaches, can help make a major impact in addressing these challenges (see Section 6: Meeting the Challenges – Concluding Comments). The outcome being the provision of high quality patient care along with improvements in community health and wellbeing. These types of outcomes are documented in international case studies of health care organisations successfully implementing the Balanced Scorecard (see Sections 3 and 5).

While the Balanced Scorecard was taken up fairly rapidly by a number of industries, it is seen there was initially relatively slow uptake within healthcare. One reason proposed by Kocakülâh and Austill (2007) is that health care organizations have traditionally relied heavily on the use of nonfinancial statistics and therefore, most of them believed they already had tools like the Balanced Scorecard in place. However, often what looks like a Balanced Scorecard is just a simple list of easily collected measures with no direct or clear connection with the organisation's mission or strategy.

2.1 *To what extent has the Balanced Scorecard been introduced in healthcare?*

In a comprehensive review, Zelman et al (2003) show that the Balanced Scorecard has been introduced across all areas related to healthcare, both for-profit and not-for-profit, including:

- Hospitals
- Health care systems
- University medical / health departments
- Long-term care
- Mental health centres
- Pharmaceutical care
- Health insurance companies

Not only has the Balanced Scorecard been used for strategic management at the organisational level, but the framework has also been used in the health sector for evaluation of health programs, quality of care and improvement projects, accreditation, clinical pathways, as well as performance measurement across a consortium of hospitals (Zelman et al 2003). In the latter case, it is usually a first or second generation approach (see below) that has been used.

2.2 *What are some reasons the Balanced Scorecard has been introduced in healthcare?*

While, as mentioned above, there was initially slow uptake within the health sector, over the past decade there has been strong interest with many healthcare providers around the world, in both 'developed' and 'developing' countries, now using the Balanced Scorecard. From the published literature and case studies, it is clear there are a diversity of reasons for its introduction. Some of the reasons are described in the following examples.

- The Northumbria Healthcare NHS Foundation Trust in England had been recognised as one of the most successful Trusts prior to the introduction of the Balanced Scorecard in 2009 (Marr and Creelman, 2010). To ensure they continued to be a high performing healthcare provider, the CEO wrote, *"However excellent, past performance is no guarantee of future success. High performing organizations remain so by looking ahead, understanding the challenges and determining the right strategy to maximize [their] unique business opportunities and best manage [their] risks"* (Marr and Creelman, 2010, p4). A component of this was the introduction of the Balanced Scorecard as their strategic management framework... *"We were looking for a new and powerful tool for sharpening our strategic formulation capabilities"* (Marr and Creelman, 2010, p11).
- Emory Healthcare in Atlanta (USA) underwent a major structural change from independent operating units (three hospitals and two faculty practices) to an integrated healthcare system. They found that using the Balanced Scorecard to assist in building a unified system was one of the keys for success in the transition (Bloomquist and Yeager, 2008).
- Two questions from a new Board led to the introduction of the Balanced Scorecard at Hunter Area Health Service (now known as Hunter New England Health District); a large regional public health provider in NSW (Australia) in 2001. The first question was *'how do we know that the implementation of our strategic plan (which won a state award) will make a difference?'* The other question was *'how can we demonstrate to the community that they are getting value for our tax payer funded (over AUS\$1 billion per annum) services?'*
- In Taiwan, the Mackay Memorial Hospital, an accredited medical centre and teaching hospital with 2,149 beds, implemented the Balanced Scorecard in 2001 in order to sharpen its competitive advantage (Chang et al, 2008). They saw the need to use best practice business tools to help them take a more strategic approach that would differentiate their services and attract more business, and that would also improve communication and collaboration between all levels of staff and key stakeholders. In addition, their board requested an annual performance report that would provide a more comprehensive view of the organisation's performance in fulfilling its mission.
- The Balanced Scorecard was introduced at the Medical Clinic along with associated medical departments and wards at Högland Hospital (Sweden) as a management tool to combine financial control with quality improvement, along with the development of clinical staff competence (Aidemark and Funck, 2009). It was initially introduced in 1997 as a two-year trial but continued because of the success of the trial.
- The Balanced Scorecard was initially introduced at St Vincent's Private Hospital (Sydney, Australia) in the nursing directorate as a framework for improving clinical governance in order to achieve better outcomes for patients and staff (Aguilera and Walker, 2008). Again, due to the success of this trial, it was later expanded across the whole hospital.
- With an upcoming major capital expansion, along with a recognition that the organisation was structured by region and health practice with competing agendas and resource demands, executives at Nemours Children's Health System in the USA decided they needed to unify the organisation around "One Nemours" (Garling, 2008). Critical to this transformation was their adoption of the Balanced Scorecard to help align and strengthen the organisation.
- Brigham and Women's / Faulkner Hospitals is a world renowned teaching and research hospital system in Boston (USA). The Balanced Scorecard was introduced in 2001 to help them have one source of reliable information on performance (Gottlieb, 2008). They also wanted a mechanism for addressing a number of major challenges

including nursing shortages and ensuring that all patients, regardless of socioeconomic status, received top-quality care.

- St Mary's / Duluth Clinic Health System introduced the Balanced Scorecard after finding that traditional methods of healthcare strategy formulation (for example, extensive consultation resulting in a complex detailed strategic plan) didn't work and they needed to introduce a new approach from outside of healthcare (personal comm). This followed a recent merger as well as strong external influences that were impacting negatively and would continue to do so unless they developed and implemented the appropriate strategies.

The above examples highlight a range of reasons for Balanced Scorecard implementation by health care services, from improved performance measurement and reporting to organisational integration.

From a survey of nine healthcare organisations that were in the early stages of Balanced Scorecard implementation, Inamdar et al (2002) found that the main reason for implementation was a planned response to external forces (for example, increasing financial pressures) that motivated them to search for more effective and relevant strategic management tools than what they were currently using. In contrast, Kollberg and Elg (2010) conclude that healthcare organisations have introduced the Balanced Scorecard primarily as a system to improve health care quality. However, they go on to say that it has also been introduced as a system to reduce goal uncertainty in the organisation, enhance customer focus, create a common language on how to improve health care, and support strategy implementation. The former aims to monitor outcomes and improve performance and thereby ensure the achievement of organisational strategies and goals, while the latter aims to define, communicate, and reinforce basic values, purpose and direction for the organisation in order to encourage opportunity-seeking behaviour (Kollberg and Elg, 2010).

Many of the reasons are similar to what you would find in sectors other than healthcare. Banchieri et al (2011) suggest that across all industries, not just health, implementation of the Balanced Scorecard is most often related to a need arising from a strategic change in the organisation.

2.3 What is understood by the term 'Balanced Scorecard'?

Across all sectors and industries, it is now generally accepted there are at least three generations in Balanced Scorecard development (Lawrie and Cobbold 2004):

- *First generation* - basically a collection of measures arranged in four perspectives (financial, customer, internal processes, innovation and learning) with loose causal connections between the perspectives.
- *Second generation* – recognising the inherent weaknesses in the original concept, it was seen that measures needed to be chosen more strategically to relate to specific high level objectives that are assigned to the perspectives. The causal relationship between these objectives is indicated with a 'strategy map' which visualises the key drivers of performance.
- *Third generation* – more informed approaches with strategy mapping along with the addition of destination statements for clearer articulation of the strategy and expected outcomes.

While there is ongoing debate about what are third generation Balanced Scorecards and whether there are in fact four or more generations, an important development over the past decade has been the concept of an Office of Strategy management. This office has organisational-wide responsibility for the coordination and management of Balanced Scorecard development and deployment with continuous improvement (Kaplan and Norton, 2008). There has also been a greater emphasis on using themes and theme teams in Balanced Scorecard development and ongoing implementation. Some people would see this as fourth or fifth generation improvements.

Over time, the Balanced Scorecard has thus evolved from a set of measures across four (usually – see below) perspectives to become an important strategic management tool (Lawrie and Cobbold, 2004). However, despite this 20-year evolution, it is clear that some organisations, including those in healthcare, still understand the Balanced Scorecard to be just a

dashboard set of measures for monitoring operational performance, that is a first generation Balanced Scorecard which is now recognised to have many limitations and of limited value.

Results from an online 2011 survey by 2GC⁴ show that just under one third (29%) of organisations were using first generation scorecards. While Gurd and Gao (2008) from an analysis of 22 Balanced Scorecards in the not-for-profit healthcare sector, suggest that most examples were second or third generation Balanced Scorecards, they could not be certain they were using full strategy maps. The current author's experience is that there is still a prevailing understanding in healthcare, perhaps in part because of its strong focus on measurement, that the 'Balanced Scorecard' is just a dashboard of measures, mainly operational, arranged under financial and several non-financial categories. It is thus still commonly used as a measurement tool rather than an integrated performance management system.

How much do the Balanced Scorecard perspectives in healthcare, one of the key building blocks of a strategy map, resemble those more broadly chosen in other industries? One of the most comprehensive reviews of this was conducted by Gurd and Gao (2007) who analysed 22 not-for-profit healthcare Balanced Scorecards (Table 1). In the 22 cases, 15 had four perspectives, three had five, two had three perspectives and one had eight perspectives.

Table 1 Number and percent of perspectives

Perspective	Number	Percent
Customer (and synonyms)	17	77
Financial (and synonyms)	19	86
Internal business process (and synonyms)	20	91
Learning and growth or innovation and learning (and synonyms)	11	50
Other perspectives	14	64

Source: From Gurd and Gao (2007)

They conclude that Kaplan and Norton's four standard perspectives appear to be the template for implementations in healthcare, no matter how they were modified in practice. While there is limited supporting evidence, they do suggest that Balanced Scorecards in healthcare are perhaps more diverse than in other sectors. This is not surprising as healthcare is a complex industry, and organisations must adapt the Balanced Scorecard to their unique situation rather than blindly just accept the traditional four perspectives originally proposed by Kaplan and Norton.

Two perspectives where they see some differences from non-health care sectors are:

- *People: "In health care, all efforts to achieve balanced accountability for cost, quality and care are critically dependent on physician attitudes, beliefs, and behaviours; as well as the attitudes of nursing and other professionals. In particular, the autonomous culture of physicians and the importance of long-term outcomes are aspects of health care that have few analogies in other industries. So, as the role of professionals is important to the role of hospitals, in some examples, "People" or "Staff" became an independent perspective. We concur that when human resources are so critical to strategy implementation they should be another perspective."* (Gurd and Gao 2007, p16)
- *Customer: In health care, the focus may be on the patient as customer, and serving their needs for achieving the mission (Niven, 2003). However, this appears insufficient; they have to achieve a balance between community and patient. For example, in many public health programs, it is difficult to define the clients who are in need of, or who benefits from, a service because they target the entire community."* (Gurd and Gao 2007, p16)

⁴ Summary survey results can be viewed at <http://www.2gc.co.uk/2011/09/2gc-2011-balanced-scorecard-usage-survey-results-now-available/> (accessed 13 December 2011). There were 60 survey respondents (personal communication with 2GC).

One of their concluding comments is that, *“the needs of patients have not reached the centre of the Balanced Scorecard in healthcare. Lives are difficult to balance and most countries are struggling to contain health costs. We do not underestimate the importance of the other perspectives but we argue that, especially for not-for-profit and government providers, patient needs must be more central.”* (Gurd and Gao 2007, p18)

2.4 Performance measurement in healthcare

Performance measurement is common in healthcare. For example in Australia, to meet the standards of the Australian Council on Healthcare Standards (ACHS) accreditation program (EQuIP), an organisation is required to regularly collect and evaluate relevant clinical and non-clinical indicators. With regard to the former, there are currently (2012) 22 clinical indicator sets and 338 indicators to choose from in the ACHS program. Programs such as this allow easy benchmarking across similar sites. There are also a range of state and national health reporting requirements in addition to the numerous other local measures that most hospital and community health services collect. Similar programs for accreditation and reporting exist in other countries.

While the increase in measurement within healthcare over the past 20 years is a very positive development, some general comments can be made about these measurement systems generally, and measurement using the Balanced Scorecard.

- Many health measurement systems have a particular focus and usually do not reflect the organisation’s strategy nor progress towards achieving that strategy
- They are often disconnected, poorly defined and stored in databases that are challenging to link together
- They often do not have a clear cause and effect logic between various components of what is being implemented and measured
- They are usually much more operational
- While there can be some overlap (particularly with cascaded Balanced Scorecards at a clinic or department level) between ‘operational’ measures and ‘strategic’ measures, it is important that the Balanced Scorecard measures are limited and strategic as there is usually strong pressure for ‘measure creep’.

In an interesting study by Pink et al (2001) of how hospitals in Ontario chose and used Balanced Scorecard measures, the following insights were gained:

- Be flexible in choosing performance measures as the measures should reflect the critical performance issues of the day and these may change over time
- Some indicator compromises due to lack of data are inevitable while steps are put in place to collect more appropriate data
- Data quality is a major concern and needs to be addressed for credibility
- Form - how the data is presented - is as important as substance
- Comparisons are valuable when the data is reliable and often leads to a fresh appreciation that something needs to be changed
- Expert advice is not an option – it is essential there is consultation with appropriate experts, for example, clinicians with clinical data
- Build data linkages early on as it much harder later
- Information is political – for example, when obtained by local media without understanding how it should be interpreted
- Real variation, even after case mix and other adjustments are made, exists between hospitals

It is also important to acknowledge and build on the fact that many medical staff have a natural affinity for measurement-based decision making as this underlies their profession. However, they like to control the measurement and not see it used inappropriately, for example, by not taking into account risk adjustment if comparing different clinics (Aidemark 2001).

3. How Successful has the Introduction of the Balanced Scorecard been?

Across all sectors, it has been suggested that 70% of Balanced Scorecard implementations fail (Neely and Bourne, 2000). Two main reasons proposed for this high failure rate are poor design and difficulty of implementation. Results from the Hackett Group show that less than 20% of companies that have mature Balanced Scorecard implementation are generating business value (Answerthink, 2004). According to Hackett's research, "*most companies are having significant difficulty in taking the Balanced Scorecard from concept to reality*". Interestingly, the Senior Business Advisor for the Hackett Group comments that, "*...most companies get very little value out of Balanced Scorecards because they haven't followed the basic rules that make them effective*"⁵

To the author's knowledge, no study has been conducted about the 'success' / 'failure' (or discontinued with implementation / sustained implementation) rate of Balanced Scorecard implementation within the healthcare sector. Usually, only implementations that have resulted in clear benefit are written up in peer-reviewed papers or as case studies. It is also likely that international surveys of utilisation and perceived benefit may be biased with those having more positive experiences being more likely to respond.

Because of the complexity of healthcare delivery and the range of influences acting together at any one time (for example, regulatory, technological, medical), it is difficult to be able to conclude just what proportion of improvement in processes, and more particularly in outcomes (for example, patient satisfaction) could be attributed to the introduction of the Balanced Scorecard. Healthcare organisations are complex adaptive systems and as such are "*... a collection of individual agents that have the freedom to act in ways that are not always predictable and whose actions are interconnected such that one agent's actions changes the context for other agents* (Nelson et al 2001). As complex adaptive systems, healthcare organisations are made up of numerous clinical microsystems of care (for example, an emergency department), each of which may unknowingly and in unforeseen ways have impacts on other clinical microsystems (for example, the ward a patient may be transferred to).

While the question of attribution is a challenge for those evaluating healthcare programs, particularly summative evaluations, evidence from several case studies suggest there is at least a close correlation between the introduction of the Balanced Scorecard and improvements in some organisations. Table 2 below describes some of the benefits, both qualitative and quantitative, that are perceived to have been correlated with, or come from, implementations of the Balanced Scorecard within the healthcare sector. Some of the listed benefits are commonly identified in other industries implementing the Balanced Scorecard.

Table 2 Some examples of documented benefits from Balanced Scorecard implementation in the healthcare sector

Health service	Benefits
Feedback from nine healthcare organisations in the early stages of implementation (Inamdar et al 2002)	Some of the listed benefits included: <ul style="list-style-type: none"> • Clarification and consensus of strategy • A framework for decision-making • Communication of priorities and focus on core business – 'keep the clutter out' • Linkage of strategy and resource allocation • Greater management accountability • Learning and continuous improvement
Mackay Memorial Hospital Taiwan (Chang et al, 2008)	<ul style="list-style-type: none"> • Focus and alignment throughout all levels of the organisation, including the Board • The strategy map, through the cause and effect logic, helped the Board members and executives speed up their decision making on large investments in intangible assets • Improvements in performance results. Besides improvements in financials and patient satisfaction, there were improvements in a number of other areas. For example, in the social commitment perspective, the number of visits by the disadvantaged rose by 19% between 2003 and 2005. In the internal process perspective, the delay between a request and obtaining antibiotic consultations was shortened from 40 hours in 2004 to

⁵ <http://www.businesswire.com/news/home/20041022005299/en/Executives-Unable-Balanced-Scorecards-Concept-Reality-Hackett> (accessed 21/1/2012)

Health service	Benefits
	21 hours in 2005. The trend of the percentage of patients admitted to the intensive care unit from the emergency department in less than 3 hours showed an increment from 47.8% in 2004 to 82.5% in 2005. In the learning and growth perspective, the number of Science Citation Index papers rose from 132 in 2003 to 195 in 2005.
Medical Clinic at Högland Hospital, Sweden (Aidemark and Funck 2009)	<ul style="list-style-type: none"> • Quality improvements in patient care and outcomes • Development and sustainment of a 'measurement culture' • Stimulated a new dialogue between clinicians and management about vision and strategy
Brigham and Women's / Faulkner Hospital Gottlieb (2008)	<ul style="list-style-type: none"> • Facilitated move from <i>measuring</i> performance to <i>managing</i> performance resulting in a range of performance improvements including a decrease in average length of stay over four consecutive years, despite increases in the severity of illnesses treated; and a drop in rate of episiotomies (from 8.6% in 2006 to 4% in 2007)
St Mary's / Duluth Clinic Health System (personal comm from a site visit in 2001, Johnson 2002)	<p>Some identified benefits included:</p> <ul style="list-style-type: none"> • Increased management and clinician accountability with clearly defined targets • Improved patient satisfaction • Positive turn-around in financial performance • Improved communication • Organisational alignment <p>Interestingly, the first attempt at introducing the Balanced Scorecard resulted in just a dashboard with measures. This became one extra thing for staff to do without any connection to strategic priorities. The above benefits were not achieved until they developed it as a strategic management system including the development of a strategy map with strategic themes and cascading.</p>
Kocakülâh and Austill (2007) – 'Crandon Health System' ⁶	<ul style="list-style-type: none"> • Enhanced focus on customer service • Improved outcomes with quality improvement programs targeting measures where sub-optimal performance
Duke Children's Hospital – Meliones (2001)	<ul style="list-style-type: none"> • 18% increase in patient satisfaction • 23% reduction in average length of stay • Readmission rate drop from 7% to 3% • \$29M drop in costs over four years without cutting staff • Fulfilment of hospital's mission
Medical Clinic at Högland Hospital, Sweden Aidemark and Funck (2008)	<ul style="list-style-type: none"> • Significant improvements in clinical outcomes as a result of process and behaviour changes • Culture transformed to become one where measurement is valued
St Vincent's Private Hospital. Aguilera and Walker (2008) and personal communication	<p>Comparative results following implementation (2005-2007):</p> <ul style="list-style-type: none"> • Increase in patient satisfaction (from 88% to 96%) • Increase in percentage of patients pre-admitted (43% to 68%) • Increase in percentage of patients risk assessed (40% to 90%) • There were also reductions in MRSA, falls and medication incidents, average length of stay, vacancy rates and turnover rates • As a result of the implementation of the Balanced Scorecard and associated initiatives, the hospital was awarded the 2007 Press Ganey Associates (Australia) Success Story competition and in 2011 the Magnet Recognition Program Award for Nursing Excellence.

In their review of the implementation of the Balanced Scorecard in the health sector, Kocakülâh and Austill (2007, p80f), conclude that health care providers can benefit from using the Balanced Scorecard in a number of ways which are a mixture of both broad and narrow benefits including:

1. Provides a snapshot of the organisational performance that is easy to understand and which can enhance communication with key stakeholder groups ranging from patients to staff
2. Allows the organisation to have an early warning system before the organisation begins to see negative financial impacts
3. For non-profit health care organisations, the Balanced Scorecard is adaptable and avoids overemphasis on financial measures as organisations respond to increasing demands for quality and patient satisfaction

⁶ 'Crandon' is a fictional name used for reporting the study. It grew from being a regional hospital to an integrated healthcare system.
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4. The process forces the organisation to clarify and gain consensus on the strategy
5. Increases the credibility of management with board members
6. The four perspectives give executives and team leaders a framework for decision-making
7. It helps set priorities by identifying, rationalising, and aligning initiatives. The executives can then focus their attention, and front line workers can then understand the value of their work and how it relates to the organisation's strategic objectives
8. Links strategy with resource allocation and has a depoliticising effect on the budgeting process because employees understand strategic objectives
9. Supports greater accountability, especially when it is linked to managers' incentive plans
10. Enables learning and continuous improvement with employees educated on how the industry measures success
11. Can add customer / client insights and feedback to enhance marketing
12. The organisation can refocus internal operations and revise strategies as necessary
13. The process can energize internal stakeholders of the organisation
14. Because more attention is paid to the patient, the relationship with the patient will be strengthened
15. Can increase patient and employee loyalty and return of value

4. What have been the Main Factors Associated with Successful Implementation

For anyone implementing the Balanced Scorecard, it is important to know what are the key factors associated with successful implementation and longer term sustainability.

Table 3 lists the some of the key factors for overall successful implementation. It does need to be noted that some of these are based on the perceptions of just a few key people involved rather than having been identified through a reasonably robust evaluation.

Table 3 Main factors associated with successful implementation from selected healthcare organisations

Health Service	Main factors associated with successful implementation
Mackay Memorial Hospital (Taiwan) (Chang et al 2008)	<ul style="list-style-type: none"> • Participation of board members • Cascading the Balanced Scorecard to hospital departments • Transparency with performance reporting • Aligning budgets to the Balanced Scorecard • Supporting information systems and timely data in the right format • Ongoing review and improvement
Medical Clinic at Hogland Hospital (Sweden) (Aidemark and Funck 2009)	<ul style="list-style-type: none"> • Decentralisation of the development of the Balanced Scorecard to the individual ward teams, that is, those closest to clinical care • Clinic (at a higher level than ward) management encouragement, insistence and support⁷ • Flexibility of design and use of the Balanced Scorecard given by the Council leadership to the various medical groups • Annual strategy meetings and meetings of the management groups helped strengthen the interdependence between the different wards
Feedback from nine healthcare organisations in the early stages of implementation (Inamdar et al 2002)	<p>Some of the common factors identified included:</p> <ul style="list-style-type: none"> • Evaluation of the organisation's readiness for implementation • Management of the development and implementation process • Encouragement of an open environment of learning and feedback • Taking a whole systems approach including cascading
St Mary's Duluth Clinic Health System (USA) Johnson (2002) + site visit (2001)	<ul style="list-style-type: none"> • Clinicians and administrators working closely together in teams for implementation and decision-making • Entire executive team support • Cascade throughout the organisation • Regular weekly / monthly meetings of key staff to monitor and review • Effective communication to all staff
Hunter New England Local Health District (Australia) (Hunter New England LHD 2011; Dyball et al 2011)	<ul style="list-style-type: none"> • Senior management commitment along with involvement of non-managerial staff • Perceived ease of use • Clear articulation of benefits and relevancy to clinicians • Integration into core business • Technology support
The Hospital for Sick Children (SickKids) (Canada). Smith et al (2011)	<ul style="list-style-type: none"> • Commitment of the CEO and Board of Trustees • Achievement and sustainability of breakthrough results reported on the scorecard - Clinicians are more evidence based in their decision-making than most other professional groups and before committing to something want to know or see substantial evidence that it is working
Brigham and Women's / Faulkner Hospital (USA) Gootlieb (2008), website -	<ul style="list-style-type: none"> • Rapid access to web-based data that draws on patient-level data from more than 80 sources. • Cascading of the Balanced Scorecard to departments and individuals

⁷ An example is given where when the wards had to manage the data system by themselves for a period, the Balanced Scorecard came to a halt.

Health Service	Main factors associated with successful implementation
http://www.brighamandwomens.org (interview with Dr Gustafson)	
Duke Children's Hospital (USA) – Meliones (2001) plus site visit (2001)	<ul style="list-style-type: none"> • Maintain focus on patients • Conservative target setting initially • Pilot project demonstrating to doubters that the approach works • Constant communication – 'talk the Balanced Scorecard', celebrate successes, use different people to target different professions • Perseverance • Continual review and learning from mistakes • Clinicians and administrators working together • Turn data into information
St Vincent's Private Hospital (Australia). Aguilera and Walker (2008)	<ul style="list-style-type: none"> • Executive commitment • Regular reporting at staff forums and local departmental meetings • Resourcing and someone to drive it • Education of and buy-in from management and staff • Needs to be hospital wide – not just the nursing directorate because of need for whole service integration
Bradford health sector – an NHS multi-agent setting (UK) Radnor and Lovell (2003)	<ul style="list-style-type: none"> • Demonstrating to staff the benefits of the Balanced Scorecard system over existing performance management systems – how it value-adds • Start the implementation at the highest level • Cascade the Balanced Scorecard to other levels • Obtain support to introduce • Learn from past experiences

From the above, a few key common success factors can be identified:

- Senior management support
- Central involvement of clinicians and some flexibility at lower levels
- Demonstration of empirical benefits
- Cascading to lower levels
- Ongoing communication with all staff
- Regular management review and monitoring
- Supporting information technology for monitoring and reporting performance

Assiri et al (2006) carried out a comprehensive review of the relevant literature and case studies complemented by an exploratory global survey of 103 organisations across 25 countries that had already implemented or were in the process of implementing the Balanced Scorecard. While the study was not specific to any one industry, it did focus on the critical issue of identifying the potential determinants influencing the successful implementation of Balanced Scorecard. The end result of their research is a model that contains 27 critical success factors which are expected to influence Balanced Scorecard implementation. These factors are divided into three levels, namely dominant, main, and supporting factors. They suggest that these may be a useful checklist for those implementing the Balanced Scorecard.

1. *Dominant* factors are those without which the Balanced Scorecard would be hard to be implement: identifying adequate Balanced Scorecard perspectives, executive and senior manager commitment, and a Balanced Scorecard team.
2. *Main* factors are less critical than dominant factors but are important steps in implementation. These are grouped into six categories: learning and innovation, planning, development, implementation, sustainability and realisation of benefits. They include such things as development of an implementation plan, automation of and regular reporting, cascading to lower levels, corporate alignment, learning and innovation, problem solving and action planning, stimulation of culture.

3. *Supporting* factors support the above two groups: integration, self-assessment, finalise Balanced Scorecard plan, finalise measures, and fine tuning and refining.

5. Some Learnings from Health Case Studies

Several case studies of Balanced Scorecard implementation in healthcare are described below. Each of the studies highlight various aspects that are worthy of consideration by other healthcare organisations implementing the Balanced Scorecard. Of course, there would be many other examples worthy of reporting because of their interesting features and learnings; these are just a selection from those that are more readily available to the author.

5.1 Nemours Children's Health System

Nemours, is a non-profit foundation dedicated to the health and medical treatment of children. It is one of the leading paediatric health systems in the USA and promises to do whatever it takes to prevent and treat even the most disabling childhood conditions. They care directly for 250,000 children annually 'treating every child as if they were our own' and were inducted into the Balanced Scorecard Hall of Fame in 2007.

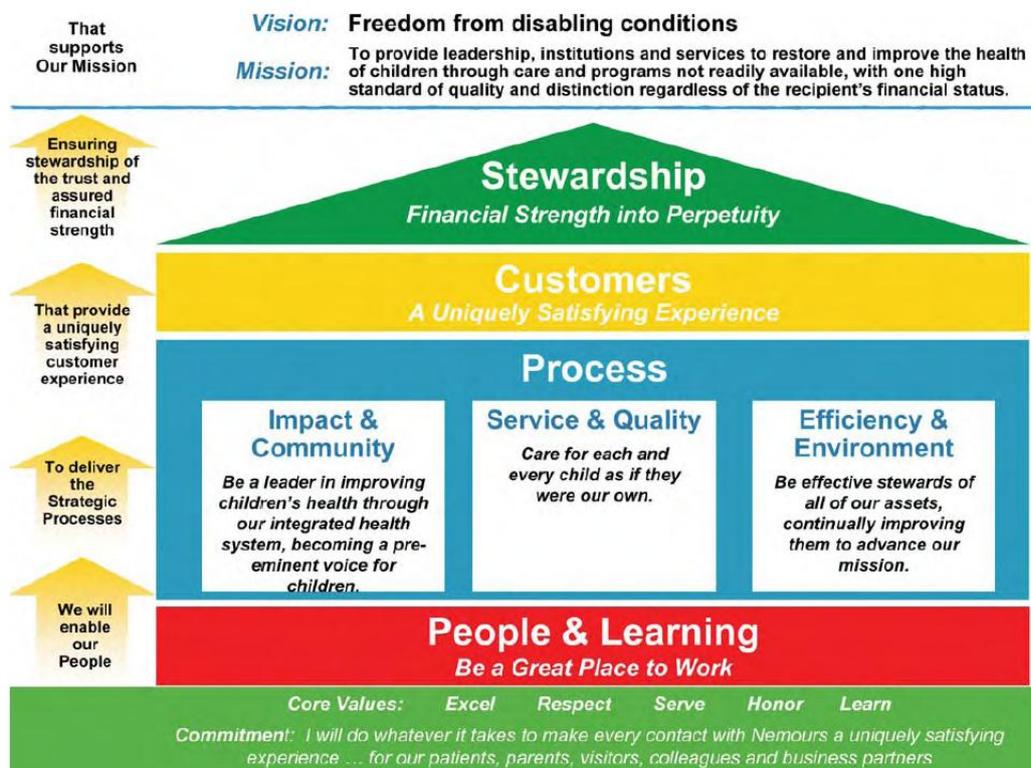


Figure 1: Nemours Children's Health System Strategy Map (high level)

Used with permission. www.nemours.org

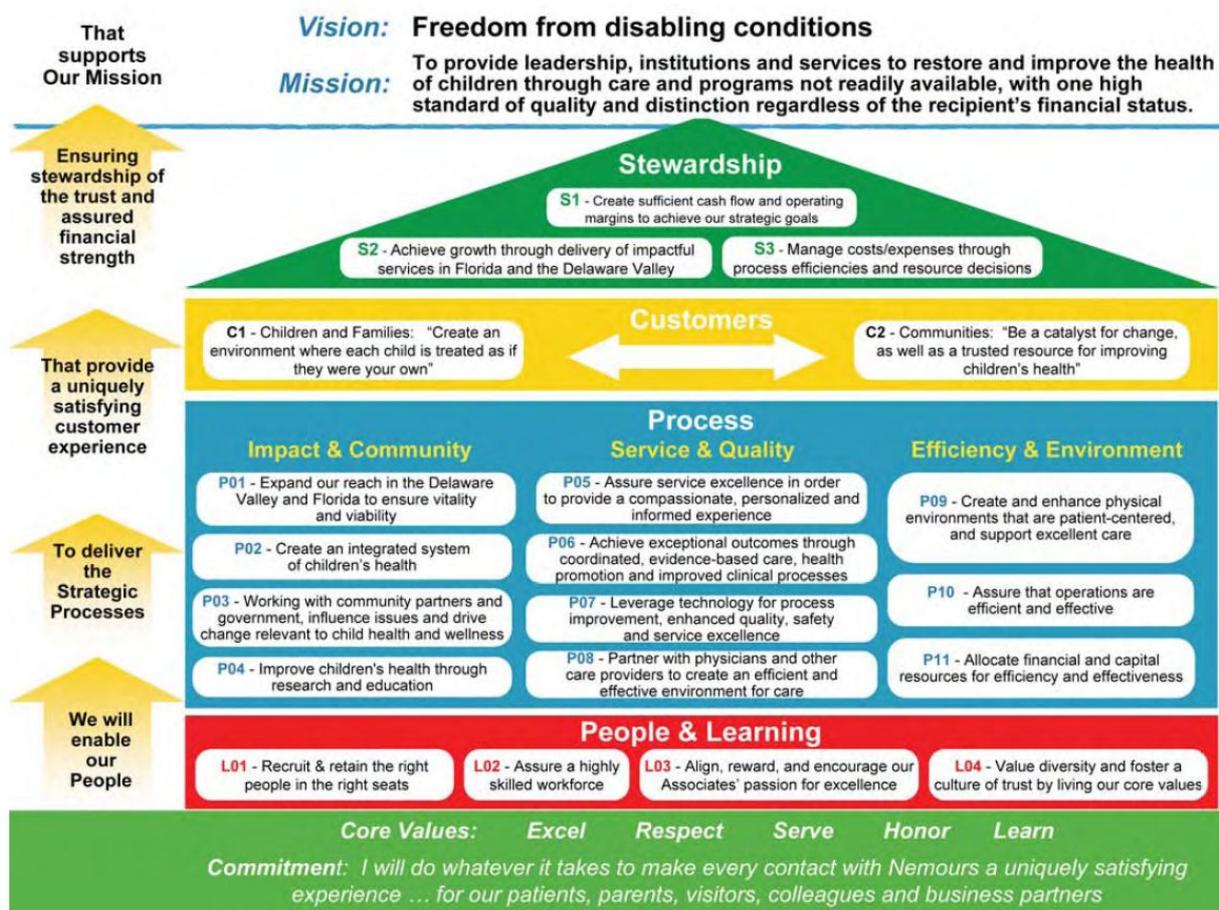


Figure 2: Nemours Children's Health System Strategy Map (detailed with strategic objectives)

Used with permission. www.nemours.org

Their Balanced Scorecard implementation is well described by Garling (2008). Some interesting components of their implementation, largely drawn from Garling, include:

- After a stalled introduction in 2005, Balanced Scorecard deployment moved forward as a top priority in 2006 with the appointment of a new CEO. As with several other published health examples (for example, St Mary's Duluth Health System), the CEO had a medical background and saw the benefit of the Balanced Scorecard to address current challenges.
- Associated with the introduction of their Balanced Scorecard and its cascading, they introduced a comprehensive 'Strategy Management System'. This was seen as the sustainable way to lead the organisation into the future. A core feature was the creation of a 'nerve centre' of top level committees including the Strategy Management Governance Team, Annual Calendar Committee, Performance Management Committee, Strategic Communications Committee, and Initiative Management Committee. The committees, which include executive team members, work cross-functionally, sharing best practices to ensure consistency and strategic alignment. This approach aligns long-term strategy and measures to tactical planning, budgeting, and resource management, ensuring coordination and support across the organization.
- Their Centre for Process Excellence, which according to Garling is effectively their Office of Strategy Management, supports strategy by developing teams of internal educational and business process consultants who are utilised where needed to improve processes (for example, with Lean or Sigma) to meet performance targets.
- Strategy review sessions are held monthly at various levels within Nemours. All executive team members are required to attend at least two cascaded strategy review meetings to gain insight into other teams' activities and challenges.

- With the initiatives underlying performance, emphasis is placed on cross-functional collaboration and ownership to break down silos which are a well-known impediment to effective and safe healthcare delivery.
- At the time the paper was written, various other initiatives were being planned or implemented including a comprehensive strategy communication program and enhanced use of information technology to improve performance.

Some key learnings:

- Key structures (for example, the Strategy Management System and the Centre for Process Excellence) and processes (for example, strategy review meetings and cross functional collaboration) were put in place to ensure optimal outcomes
- Driven by the CEO and his Executive team all of whom had high visibility throughout the organisation for Balanced Scorecard deployment
- Not saying 'they had arrived' but ongoing efforts to improve and excel.

"When we first came together in 2005, we came as individuals with a siloed mentality who saw no value in being a team. What the SMS [Strategy Management System] did was make us look at our objectives more globally and functionally and drive us toward the right objectives for the organization as a whole. In two years it helped us transform from a group of individuals to a team on the cusp of being a high-performing team." (Garling, 2008 p8)

5.2 Brigham and Women's / Faulkner Hospitals

Brigham and Women's / Faulkner Hospitals is an internationally recognised 793-bed teaching affiliate of Harvard Medical School located in Boston, USA. They have over 50,000 inpatient admissions a year and more than 3.5 million ambulatory visits as well as very strong teaching and research programs. It is consistently ranked as one of the best hospitals in the US in the US News and World Report's America's Best Hospitals annual survey. Their Balanced Scorecard deployment has been written up briefly by Gottlieb (2008). It was inducted into the Balanced Scorecard Hall of Fame in 2006. The following summarises from Gottlieb some interesting features from their Balanced Scorecard implementation.

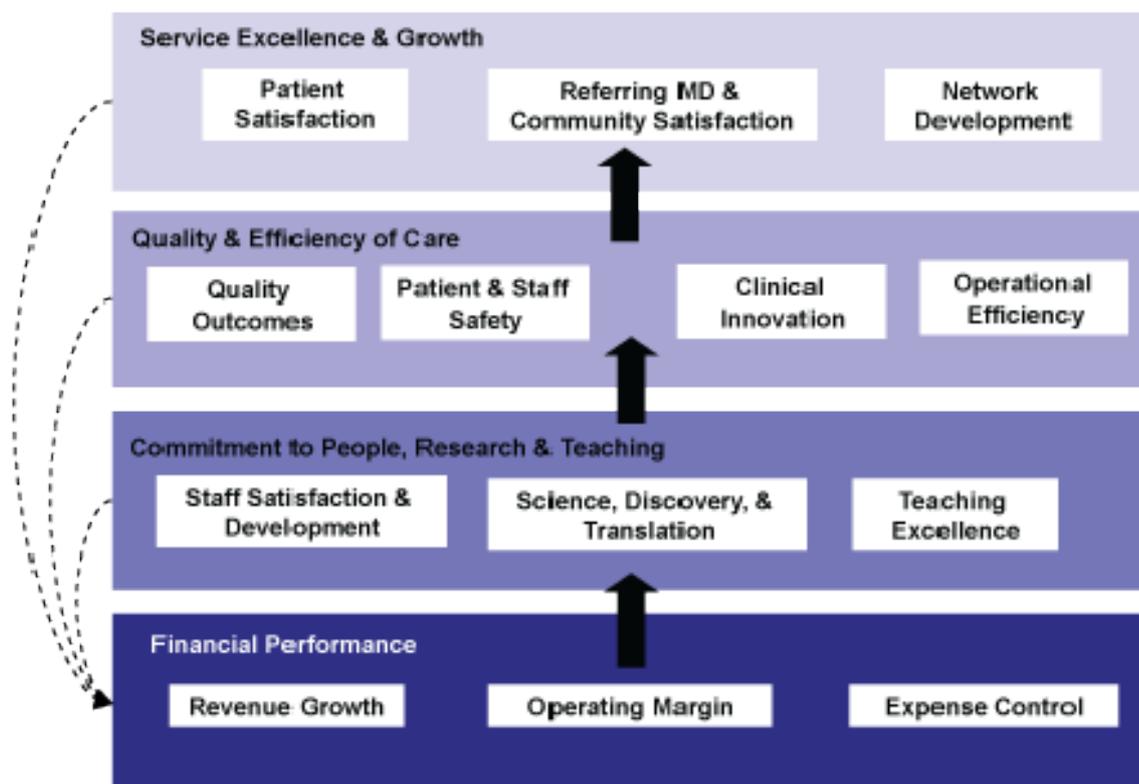


Figure 3: Brigham and Women's / Faulkner Hospital Strategy Map (2009)

Used with permission. www.brighamandwomens.org (Source: <http://whynotthebest.org/contents/view/65> - Accessed 23/1/2012)

- Implementation started in 2001 to address a number of challenges they were facing at the time including having a 'single source of truth' and that all patients, regardless of background, received top quality care.
- In the next year they entered a contract with SAS to develop automated performance reporting.
- This was followed in 2003 and beyond with the cascading of their Balanced Scorecard (including strategy maps and associated scorecards) throughout the organisation.
- By 2008, there were also 400 individual-level scorecards. The results for these were available on the intranet with the capacity for individuals to compare their performance with peers.
- By careful exploration and analysis of data, they were now able to manage performance, not just measure it. Their next goal is to move from performance management to strategy management and to move towards real time measurement rather than just monthly.
- While a number of factors were critical in these achievements, the introduction of the Balanced Scorecard helped management and clinical staff have rapid access to key data for decision-making. Their web-based application includes a data warehouse that draws patient-level data from more than 80 sources. Dr Michael Gustafson, their vice-president said, "The Balanced Scorecard provides a cascade of data so each department and division and, in many cases, individual physicians can see how they are performing on specific measures like mortality or length of stay.....It allows us to link performance metrics to our strategic goals." As an example of how the results have

helped improve clinical care, the head of Obstetrics turned to the Balanced Scorecard to examine his division's performance on episiotomies. The data showed variations among physicians of 5% to 40%. The sharing of episiotomy data prompted an inquiry and division-wide discussion on quality improvement. *"And what's equally important to looking at this specific data [it] has opened the eyes of many of our physicians to the Balanced Scorecard and how to use it."*⁸

- Their new way of *'measuring and managing performance has helped people throughout BWF (Brigham and Women's / Faulkner) see that they can play a direct role in supporting our mission and strategy. That alone has been an intangible incentive that has won their commitment to continual improvement.'* (Gottlieb 2008, p13)

Some key learnings:

- Having automated performance reporting software facilitates monitoring and analysis of results at all levels of the system as well as more rapid rollout of the Balanced Scorecard. Real time reporting, particularly for operational measures, is seen as an important goal for more rapid and timely decision-making.
- This is a good example of where a Balanced Scorecard in the health sector has been cascaded to individuals – it shows it can be done for medical staff as well as management, something that some organisations see as too hard.

⁸ http://www.brighamandwomens.org/about_bwh/publicaffairs/news/publications/DisplayBulletin.aspx?articleid=3439

5.3 Canadian Blood Services

Canadian Blood Services is a national, not-for-profit organization that manages the supply of blood and blood products in all provinces and territories outside of Quebec. It operates 42 permanent collection sites and more than 20,000 donor clinics annually. In addition, it oversees the OneMatch Stem Cell and Marrow Network and provides national leadership for organ and tissue donation and transplantation. Material for this case study is taken from several public sources including their own website⁹. It was inducted into the Balanced Scorecard Hall of Fame in 2007 and in 2009 tied as the winner of the national organisational governance award.



Figure 4: Canadian Blood Services 2010-2015 Strategy Map

Used with permission (<http://www.blood.ca>)

The following summarises some interesting features from their Balanced Scorecard implementation.

- Canadian Blood Services journey of transformation began in 1998 when it took over the operation of the blood system in all provinces and territories outside of Quebec. Because of a 10-year decline in blood donations, public perceptions of mismanagement, and a severe lack of public trust as a result of the tainted blood crisis of the

⁹ For example,

http://www.blood.ca/CentreApps/Internet/uw_v502_mainengine.nsf/web/42FF1FF6045DB49D85257375004F451A?OpenDocument
Review of the Use of the Balanced Scorecard in Healthcare

1980's and early 1990's, there was a 'burning platform' with a very compelling case for change. In fact, it was noted by one senior manager as having been '*been born in an environment of failure and scandal*'¹⁰.

- By 2002 the organization was able to move from a mode of crisis management to one of strategic management. A key factor in this was the adoption of the Balanced Scorecard framework which helped integrate strategy in every level of the organization and achieve breakthrough performance in a number of areas. Their initial strategic themes were Safety, Operational Excellence and Preparing for Tomorrow.
- There have been three phases in their journey from the precipice:
 - Phase 1 (1998-2003) – Crisis Management
 - Phase 2 (2002 to 2007) – Strategic Management
 - Phase 3 (2008 to 2012) – Strategy Management Renewal
- Balanced Scorecards were developed at all levels of governance - Board of Directors, CEO, Corporate level, Senior Executives and all Divisions
- At the beginning of the project an Office of Strategy Management was established. This strategic unit reports direct to the CEO with the head being the Vice-President, Strategy Management. Core functions included strategic alignment (for example, scorecard management and strategy reviews), portfolio management (for example, initiative and project management), business development (for example, strategic planning) and communication. It manages processes and structures around development and execution of corporate strategy and has been critical in the organisation moving forward.

"The Balanced Scorecard concept has improved our internal alignment, enhanced our metrics-based decision-making, and makes allocating resources against priorities easier.In short, it has changed how we manage the blood system by crystallizing what's important to our organization and its mission." (Dr Graham Sher, CEO)

Some key learnings:

- An excellent example of how the Balanced Scorecard helped radically shift community perceptions and trust in a national organisation where it went from less than 50% to 85% saying they trust the service to act in the best interests of the public.
- This is one of the few documented health case studies where risk management is an integral part of Balanced Scorecard management¹¹. Their approach has three core elements:
 - Risk identification and analysis – based on risks threatening the achievement of the strategic objectives
 - Risk monitoring and reporting – within the strategic performance reporting framework
 - Risk as an input into the Balanced Scorecard assessment and review
- Strategy management became an embedded core competency throughout the organization, just as safety, security, and trust had been during their crisis management phase.
- Very strong and rigorous initiative / project management built into the approach so that initiatives are delivered the right way and on time.
- An good use of communications including intranet, electronic news releases, newsletters, and an anonymous intranet based system for staff to ask questions of the Executive.

¹⁰ See Krever Commission of Inquiry on the Canadian Blood System.

¹¹ See Bingham, D (2009) Integrating risk management into the strategic planning process at Canadian Blood Services. HBR Balanced Scorecard Report, November-December 2009.

5.4 The Hospital for Sick Children (SickKids)

The Hospital for Sick Children (SickKids) is recognized internationally as a leading paediatric healthcare organisation and is Canada's leading centre dedicated to advancing children's health through the integration of patient care, research and education. They have around 14,500 admissions and provide 275,000 non-admitted occasions of service a year¹². This is carried out by over 9,500 staff, trainees and volunteers. The following information is drawn from Smith et al (2011) as well as their own website¹³.

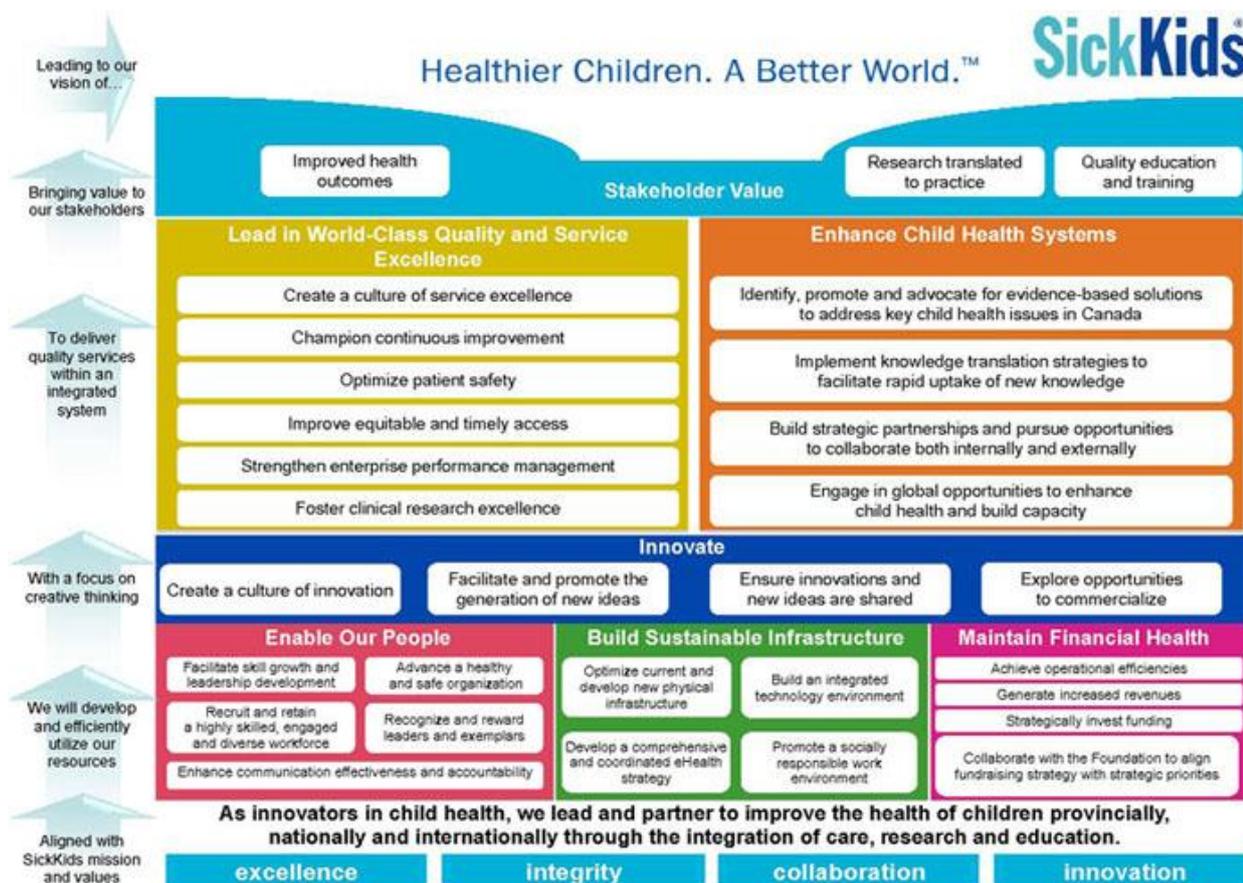


Figure 5: Strategy Map for The Hospital for SickKids (2010 – 2015)

Used with permission. www.sickkids.ca (Source: <http://www.sickkids.ca/AboutSickKids/avenues-to-excellence/strategy-map/index.html> - Accessed 2/3/2012)

- The Balanced Scorecard was initially introduced in 2005 with a major review in 2009 as part of the development of their strategic directions for 2010 to 2015 (see Figure x).
- It has been cascaded from the corporate level down to personal objectives to ensure “*top-down alignment and bottom up execution*”. As a result of this cascading and alignment, 70% of staff saw a direct link between their personal work objectives and the SickKids strategy (2010 staff survey). This is much higher than that obtained from surveys of other large organisations where it often sits at less than 10%.
- A core feature of their Balanced Scorecard implementation was their creation of an Office of Strategy Management in 2006. This is now seen as a key component of successful Balanced Scorecard implementation (Kaplan and Norton 2008) with SickKids being a pioneer within the health sector. Some elements of this office at SickKids included:
 - Their managing strategy is seen as a corporate function similar to other well recognised functions, such as managing people or finances, with the head reporting to the CEO

¹² From their 2010/11 Annual Report. http://www.sickkids.ca/annualreport/36577-2010_2011_AnnualReportFINALFINAL.pdf

¹³ <http://www.sickkids.ca/>, <http://www.sickkids.ca/aboutsickkids/avenues-to-excellence/strategic-directions/index.html>
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- Over time, the Office of Strategy Management has evolved from developing the strategy management system to project managing organisation-wide strategic projects that impact on multiple portfolios.
- Within their strategy management system there are five key elements: Sickkids strategy map, scorecard, portfolio action plans, aligning personal performance goals, as well as operational and strategy review.
- It is now part of a broader portfolio – strategy, performance and communications – with the Office of Strategy Management focusing on strategy development (for example, their *Avenues to Excellence Plan 2010-2015*) and execution. Performance is managed by the Decision Support Team which looks after organisation performance reporting and maintaining the SickKids scorecard. The communications arm, managed by the Communications and Public Affairs Team, ensures that all communications are linked to organisational strategy.
- It has helped in the achievement of outstanding performance results with SickKids being inducted into the Balanced Scorecard Hall of Fame in 2010. Some of the key achievements noted when receiving the honour were major improvements in medication reconciliation, hand hygiene compliance, MRI wait times, patient satisfaction, pathology turnaround times, and international revenue generation.

Some key learnings:

- Having an Office of Strategy Management can be as effective in healthcare as in other industries.
- It has largely been through having this function that ‘*Strategy execution has truly become a core competency and part of the culture at SickKids*’ (Smith et al 2011, p24). This is something that is keenly sought after by all moderate- to large-sized healthcare organisations.
- Despite the resistance of some staff initially (for example, ‘*this is just another management fad*’, ‘*we’ve already got too many projects*’), once people saw sustainable breakthrough results occurring at the corporate level, they quickly came on board and wanted to be involved. Because medical departments are inherently adverse to change and risk due to the nature of the work performed, new models must be supported by substantive evidence.

‘Having the SickKids Scorecard in place has allowed the organisation to measure, monitor and manage its performance to demonstrate to patients and families, as well as funders, that the organisation is responsible, focused and committed to high performance and the achievement of its vision: Healthier Children. A Better World.’ (Smith et al 2011, p26).

5.5 Medical Clinic at Högland Hospital, Sweden

The Balanced Scorecard was introduced into the medical clinics in the late 1990's. Ten years later, Aidemark and Funck (2008) report on a longitudinal case study based on interviews, focus groups, documentary analysis and observation. This is one of the few evaluations of long-term implementation that are publically available. Some of the key features described by the authors were:

- The Balanced Scorecard was introduced by a clinician, the Medical Director. It was seen that *'measurement fits very well into this scientific culture. There are few areas so permeated by scientific research as health care'*. (p262)
- Initially, the medical staff, while accepting the Balanced Scorecard would provide a more balanced view of their activity, were insistent they did not want any new management control system, nor did they want the measurements to be used for making comparisons between the clinics or the hospitals, even between clinics of the same specialty.
- By 2005, there had been a significant cultural shift. *'Today it is different. Now doctors 'compete' with each other. They carry on with their clinical improvement work and compare with each other a great deal. A lot of things have happened here in the last few years. But, at the same time, development has moved towards increasing co-operation..... We are now used to measuring and it is accepted in the organisation. Comparisons are also made with hospitals in Jönköping and Värnamo.'* (p265)
- Measurement is now well accepted within the organisation because it is seen to be essential for improved clinical outcomes, for example, *'We are supposed to follow a 10-point programme for each [coronary thrombosis] patient and we generally thought we did so. A measurement revealed that only one out of ten had received the whole treatment.....There is so much that is taken for granted. Everyone thinks that patients are showered and that needles are replaced in time until you start looking at it more closely. Having said that things have to be done doesn't mean they are done – not until we begin to measure and reveal the deficiencies. The measurements affected staff behaviour, and they also made the ward management aware of routines that had to be changed.'* (p266)
- Several reasons are proposed why the practice of clinical measurement at the ward level has not dropped off with time: (1) decentralisation of the development of the measures within the internal process perspective, (2) management interest, demand and support, (3) the flexibility of design and use of the Balanced Scorecard. While the management of the Medical Clinic assigned certain measure that were to be in all cascaded scorecards, at the ward level there was significant freedom and flexibility in their choice of measures so that what was on their Balanced Scorecard was seen as relevant and appropriate for their type of clinical care, as well as meeting broader Medical Clinic requirements for consistency of care. Furthermore, each ward supplemented its own Balanced Scorecard with measures considered important for the control of operations and improvement.

Some key learnings:

- While this appears to have been largely a 1st generation implementation, it highlights that measurement across the usual four perspectives can be effectively implemented at the ward level for clinical quality improvement.
- However, it is important that besides some mandated measures across all wards, each ward is given some flexibility to add in their own clinically relevant measures.
- Creating a 'measurement' culture takes time but when staff see the benefits, there is a snowball effect.

5.6 St Vincent's Private Hospital - Sydney

Because of the critical interdependencies across clinical areas as well as with support services, it is generally considered best to initially implement the Balanced Scorecard across the whole of a hospital or healthcare organisation rather than one clinical area or support service. However, the initial introduction of the Balanced Scorecard within the nursing directorate at St Vincent's Private Hospital¹⁴ prior to whole-of-hospital implementation is an interesting case study that is well outlined by Aguilera and Walker (2008). In order to develop better clinical governance systems and processes, the Director of Nursing and his team introduced the Balanced Scorecard within the nursing directorate 'as a systematic and rigorous approach to clinical governance'.

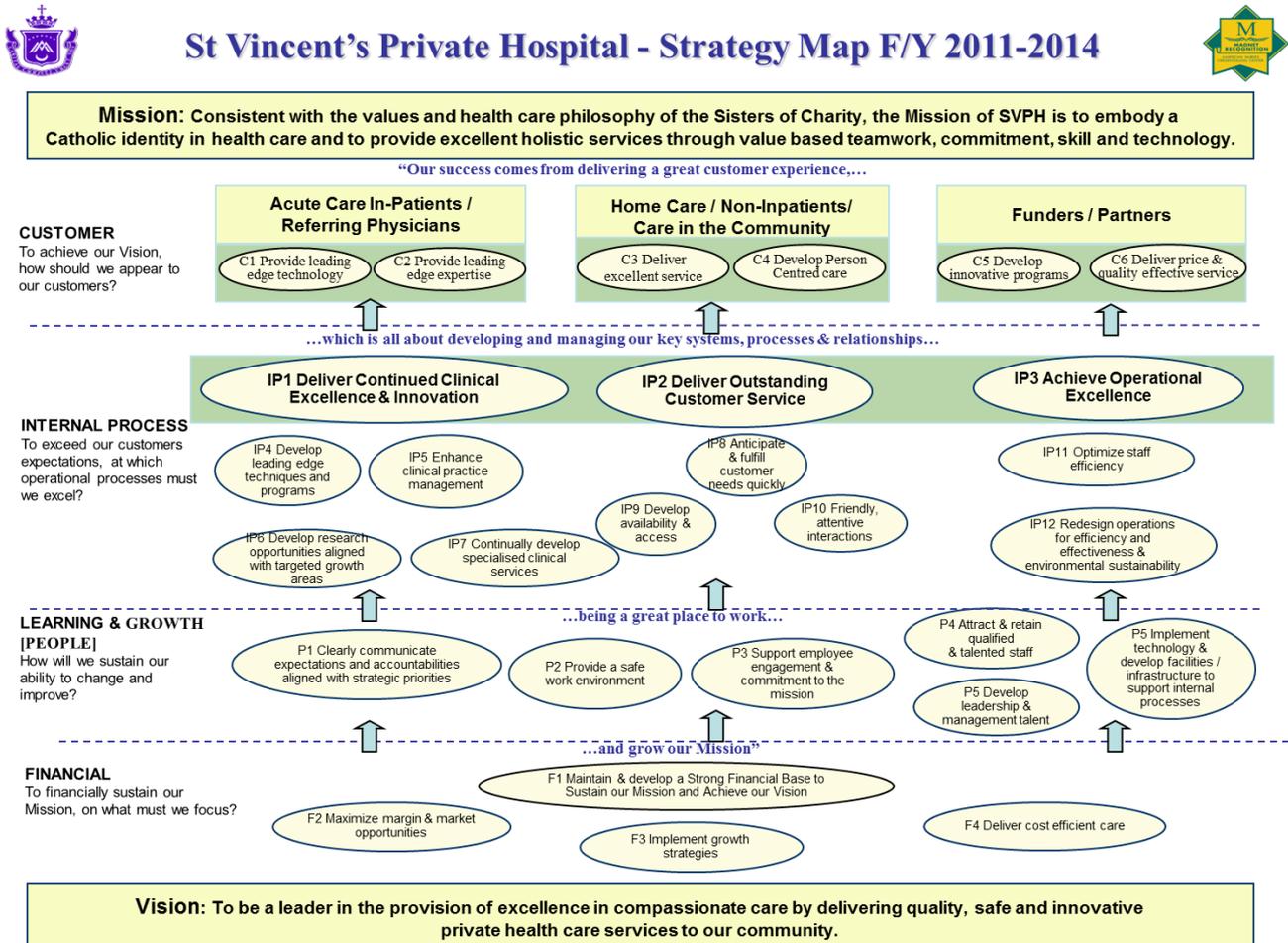


Figure 6a: St Vincent's Private Hospital Corporate Strategy Map. <http://www.stvincentsprivatehospital.com.au/> (Used with permission)

¹⁴ St Vincent's Private Hospital, located near the central business district of Sydney, is a world-class medical and surgical facility that provides overnight and day only care across a broad spectrum of specialties. The 270-bed hospital cares for local, national and international patients and is operated by the Sisters of Charity.



SVPH NURSING & CLINICAL SERVICES DIRECTORATE STRATEGY MAP 2011 - 2014

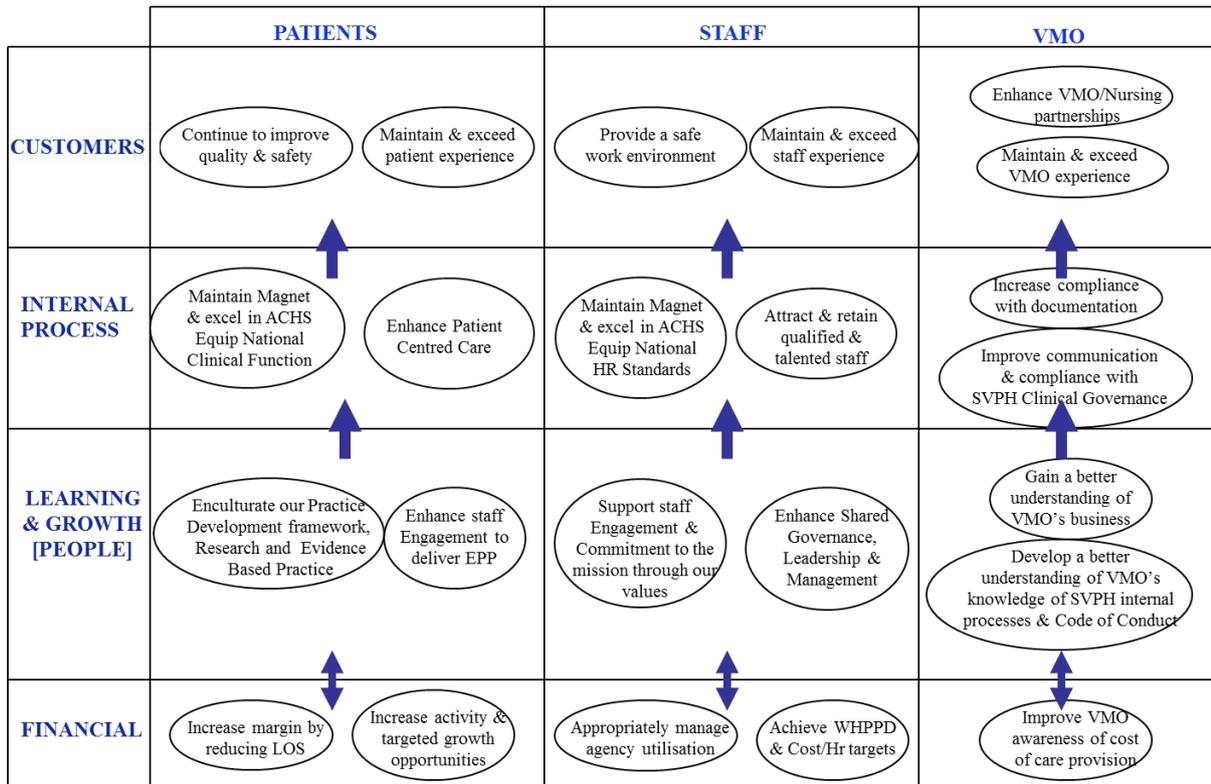


Figure 6b: St Vincent's Private Hospital Nursing and Clinical Services Strategy Map. (Used with permission)

Some of the important steps in their Balanced Scorecard deployment included:

- In 2004, the hospital executive gave approval for the Nursing Directorate to proceed with a trial implementation. Prior to commencing implementation, the Director of Nursing, who was the driver for its introduction, undertook intensive Balanced Scorecard training and key Balanced Scorecard literature was distributed and discussed by the Nursing Executive.
- The first scorecard was developed with the strategy map having four perspectives (customer, internal processes, learning and growth and financial at the bottom) and incorporating their three strategic themes (operational excellence, quality and safety, cultural transformation) as well as key stakeholder groups (patients, staff and VMOs) (see Figure 6b for the current version) .
- With each of the three themes, 'councils, made up of managers, educators and clinicians, were formed to facilitate and guide implementation'.
- In order to cascade the Scorecard to individual departments, two-half day workshops were held with all Nursing Unit Managers and Assistant Directors of Nursing to enable each clinical area to develop individual strategy maps relevant to their department.
- The Balanced Scorecard was automated so that all staff had access to the results.
- Following the success with implementation within the Directorate of Nursing, the Balanced Scorecard was introduced hospital-wide.

The benefits, despite not initially being implemented at that stage hospital-wide, have been clear.

'....these very good results have been enabled by the BSC because of the way it allows managers to focus on specific targets and measures for which they are now held accountable. These kinds of metrics make visible otherwise intangible

processes and outcomes which further improve the likelihood of effective and efficient clinical and corporate governance at the local clinical area.’ (Aguilera and Walker 2008, p28)

However, these results did not come easily or automatically just because a system had been put in place:

‘In the two years since implementing the BSC we have discovered that it requires sustained commitment from the nursing executive; embedding cultural change of this magnitude is undoubtedly the most onerous aspect of successful implementation. Staff have a tendency to return to previous modes of thinking and behaving even after careful change management. However, we have kept the focus firmly on the BSC by reporting results regularly at staff forums and each individual clinical area meets with the DON to discuss data from the scorecard as a basis for discussing the potential for improvements in care provision. This responsibility falls largely to the NUMs on each of the clinical areas whose performance management is linked to the results they achieve through the BSC. Effective implementation clearly demands education of and buy-in from managers and staff. This process was a well-planned, systematic and timely series of focussed education and staff development activities. It is likely that refresher programs will need to be implemented as staff turnover and attrition affect the organisation’s ability to keep abreast of major change processes and as new people come onto the staff they will need to be inducted into the use and value of the BSC.’ (p28)

Some key learnings:

- The Balanced Scorecard needs to be introduced across the whole health system. This was acknowledged by the authors – *‘Each ... functional area [clinical, corporate and support] overlaps with the others, which provides further evidence of the need for an integrated approach to introducing the BSC.’ (p28)*
- Introduction and sustainability takes extensive commitment and energy that needs to be ongoing. They see that not only does it require Executive commitment, but also adequate resourcing with someone to drive it along with education of and buy-in from managers and staff.
- The Balanced Scorecard can be deployed effectively as an integrating framework to make a major difference to patient and staff outcomes and can be an important component of effective corporate and clinical governance. In fact, in 2011 the hospital was the first hospital in Australia to be awarded the prestigious Magnet Recognition Program for Nursing Excellence.

6. Meeting the Challenges: Concluding Comments

Drawing on information collected as part of this review, Table 4 highlights some of the ways in which the Balanced Scorecard can be used to address the key challenges facing the health sector today (see Section 2: Healthcare Delivery and the Balanced Scorecard).

Table 4 How the Balanced Scorecard can assist in the managing some of the key challenges today in the health sector

Challenge	Some ways the Balanced Scorecard can help
<p>1. An extremely diverse range of key stakeholders including patients and their carers / families, communities, visiting medical officers, staff, regulatory bodies, state and national health departments as well as a range of other government departments (for example, education and community services), boards, universities and shareholders (for-profit).</p>	<ul style="list-style-type: none"> • Key stakeholders involved in development of the Balanced Scorecard so diverse views are heard and greater ownership / partnership. • One-page strategy map clearly communicates to key stakeholders the service's priorities and their role in achieving them. • Key stakeholders can be incorporated into the Balanced Scorecard in a number of ways. For example, as a perspective / different perspectives (patients, community, partners, staff), a theme, an objective/s, an initiative/s and measure/s. • Balanced Scorecard performance reports accessible to key stakeholders enabling them to monitor progress.
<p>2. Ensuring that the finite resources available in an environment of rapidly growing costs (for example, new high cost medical technologies and medicines), are allocated equitably, and used effectively and efficiently for maximum whole-of-community benefit.</p>	<ul style="list-style-type: none"> • Finance / resource usage is one of the four (usual) Balanced Scorecard perspectives. Usually this is made up of effective resource use and revenue generation. • The strategy map identifies the priority areas for investment. • Direct linking of budgeting processes to the Balanced Scorecard. This includes the development of a strategy expenditure budget (STRATEX) for cross-portfolio strategic initiatives. • Having an Office of Strategy Management can help the organisation focus on strategy execution and alignment, and help it become a core competency. This can help guard against cost overruns and inefficient implementation of strategic initiatives. • Monitoring the impact of implementation of the strategic initiatives on the achievement of the Balanced Scorecard objectives can help the organisation better understand performance drivers and lead to more effective and efficient use of limited resources. • The Balanced Scorecard strategy map can be used by the Executive to show staff that new initiatives will only be considered if the proposal will positively impact on at least one or more of the objectives. • After initial strategy map development, existing initiatives that are not contributing to the strategy are easily identified by cross mapping the initiatives to the objectives.
<p>3. Funding body (for example, government) demands for improved efficiencies at the same time as improved quality of care and patient outcomes.</p>	<ul style="list-style-type: none"> • See (2).
<p>4. Increased demand for limited health care services with population growth and ageing as well as the changing nature of the burden of disease.</p>	<ul style="list-style-type: none"> • See (2).
<p>5. Getting the balance right between resource allocation to the longer term benefits from investing in health promotion and</p>	<ul style="list-style-type: none"> • As (2) above. • Health promotion and disease prevention could be an

Challenge	Some ways the Balanced Scorecard can help
disease prevention alongside the delivery of services to those requiring them in the short term, often urgently.	objective in health, particularly public and not-for-profit, Balanced Scorecards ¹⁵ . In some, it may be appropriate to have it as a strategic theme.
6. Increasing expectations and knowledge of patients. This is often gained from the internet where there is variability of information, a lot of which is not evidence-based.	<ul style="list-style-type: none"> Well-designed Balanced Scorecards will have a focus on the patient and meeting their expectations. The patient (or other primary customer) will be one of the perspectives that make up the strategy map. Measurement of progress towards achieving stretch targets for patient outcomes including patient satisfaction.
7. The journey of the main customer, the 'patient', through the health system can be convoluted and unclear with sometimes poor interfaces between the different phases of care including gaps in communication of critical information. This can occur within the one hospital (for example, the transfer of care from the emergency department to the operating theatre and then to a surgical ward) or between one organisation and another (for example, from a public hospital to a community based service managed by a different organisation).	<ul style="list-style-type: none"> Patient-centred care should be a primary outcome in the 'Customer' perspective (see above). Well-designed cascaded Balanced Scorecards should take into account the interdependencies between the various 'microsystems' of care as well as support services. It may be useful to get one department/s to review the Balanced Scorecard of other departments from where, and to where, the patient may move to. Having an Office of Strategy Management / Theme Teams can help ensure there is cross-functional, cross-team The Balanced Scorecard can be used to help define and clarify the relationship between different organisations involved in patient care.
8. In some medical specialties and sub-specialties, as well as other clinical disciplines, there are major shortages of qualified staff. There are also significant issues with ageing of the health workforce. Both these challenges are accentuated in rural and remote areas.	<ul style="list-style-type: none"> In the 'People and Learning' perspective, these could be priorities that the organisation focuses on. The Balanced Scorecard helps, by listing as an objective/s and hence having measures for, make sure they remain on the radar and progress of initiatives is tracked.
9. Developing and maintaining strong working relationships between medical staff, especially Visiting Medical Officers, and health service management. Medical staff may have some degree of professional autonomy being part of a self-regulating profession.	<ul style="list-style-type: none"> If a major issue could be an objective and so efforts are made to cultivate and develop. Balanced Scorecard strategy map (and associated measures and initiatives) helps clinicians see that management is not just concerned with financial outcomes but patient care and clinical outcomes.
10. Health services have traditionally collected large amounts of data and information, both clinical and non-clinical. However, this data is often in separate data bases that are not integrated or able 'to talk with each other'. Furthermore, the data is often 'locked away' and not used to inform decision making. For example, an audit in one Australian health organisation uncovered the existence of over 200 separate databases including many legacy systems that few knew about and which were not being used to improve care.	<ul style="list-style-type: none"> An integral part of the Balanced Scorecard is performance reporting and monitoring. Having the Balanced Scorecard will put the focus on collecting data that will be used for decision making. Consistent use of definitions across the organisation so that everyone is measuring the same thing. Implementation of the Balanced Scorecard often results, for the first time, the bringing together of critical data for informed decision making across all critical aspects of health care delivery. This usually takes an investment in IT resources.
11. Challenge of implementing processes (for example, clinical pathways, hand washing) consistently across a large but extremely diverse organisation. For example, a regional health service may be made up of over 500 interdependent teams, both clinical and support services.	<ul style="list-style-type: none"> Cascaded the Balanced Scorecard helps ensure that agreed priorities are focused on across the organisation

When reading these it is important to note that the Balanced Scorecard is not a panacea or the 'magic solution' that will fix everything. Rather, it has been demonstrated that when used correctly, by innovative and skilled management teams such

¹⁵ Hunter New England Health had health promotion and disease prevention as a mandatory objective in all cascaded clinical Balanced Scorecards. This ensured that every clinical team or department had initiatives targeting this along with measures to monitor progress.
Review of the Use of the Balanced Scorecard in Healthcare

as those in the case studies, it can play a critical role in helping healthcare organisations fulfil their mission and deliver outstanding healthcare to their patients and communities in a rapidly changing world.

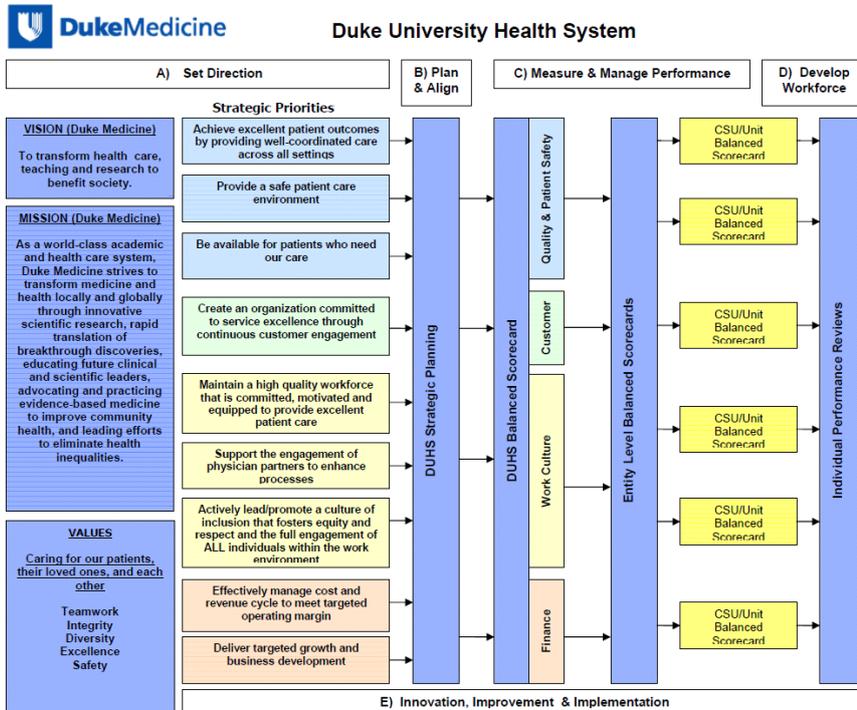
7. References

- Aguilera, J and Walker, K (2008) A new framework to ensure excellence in patient-focused care: the nursing directorate's Balanced Scorecard approach. *Asia Pacific Journal of Health Management* 3(2), 25-29
- Aidemark, L and Funck, E (2009) Measurement and health care management. *Financial Accountability & Management*, 25(2), 253-276
- Answerthink (2004). "Most executives unable to take Balanced Scorecard from concept to reality, according to the Hackett Group". Answerthink Press release. <http://www.businesswire.com/news/home/20041022005299/en/Executives-Unable-Balanced-Scorecards-Concept-Reality-Hackett>
- Assiri, A, Zairi, M and Eid, R (2006). How to profit from the balanced scorecard: An implementation roadmap. *Industrial Management & Data Systems*, 106 (7), 937-952
- Banchieri, L, Planas, F, and Rebull, M (2011) What has been said, and what remains to be said, about the balanced scorecard? *Zb. rad. Ekon. fak. Rij.* 29 (1), 155-192
- Bilkhu-Thompson, M (2003) A process evaluation of a health care Balanced Scorecard. *Journal of Health Care Finance* 30(2):37-64
- Bloomquist, P and Yeager, J (2008) Using Balanced Scorecards to align organizational strategies. *Healthcare Executive* 23 (1), 24-28
- Chang, W, Tung, Y, Huang, C, and Yang, M (2008) Performance improvement after implementing the Balanced Scorecard: A large hospitals experience in Taiwan. *Total Quality Management & Business Excellence*, 19(11) 1143-1154.
- Dyball, M, Cummings, L and Yu, H (2011) Adoption of the concept of a Balanced Scorecard within NSW Health: An exploration of staff attitudes. *Financial Accountability & Management*, 27(3), 335-361
- Edwards, J (2008) Brigham and Women's Hospital: "Moving the Needle" Takes People, Processes, and Leadership, The Commonwealth Fund
- Garling, W (2008) Earning the Execution Premium at Nemours Health System. *Balanced Scorecard Report* 10 (4), 6-8
- Gottlieb, G (2008) Moving from performance measurement to strategy management at Brigham and Women's / Faulkner Hospital. *Balanced Scorecard Report*, 10 (2), 11-13
- Gurd and Gao (2008) Lives in the balance: An analysis of the balanced scorecard (BSC) in healthcare organizations. *International Journal of Productivity and Performance Management*, 57(1), 6-21.
- Inamdar, N, Kaplan, R and Reynolds, K. (2002). Applying the balanced scorecard in healthcare provider organizations. *Journal of Healthcare Management*, 47(3), 179-95
- Johnson, M (2002) Mobilising strategic change using the Balanced Scorecard http://www.aub.edu.lb/osm/scorecards/Documents/case_study_smdc.pdf (accessed 9/01/2012)
- Kaplan, RS, and Norton, DP (1992). The balanced scorecard – measures that drive performance. *Harvard Business Review*, 70(1), 71-79.
- Kaplan, R and Norton, D (2008) *The Execution Premium: Linking Strategy to Operations for Competitive Advantage*. Cambridge MA: Harvard Business School Publishing Corporation.
- Kocakülâh, M and Austill, D (2007) Balanced Scorecard Application in the Health Care Industry: A Case Study. *Journal of Healthcare Finance* 34 (1), 72-99

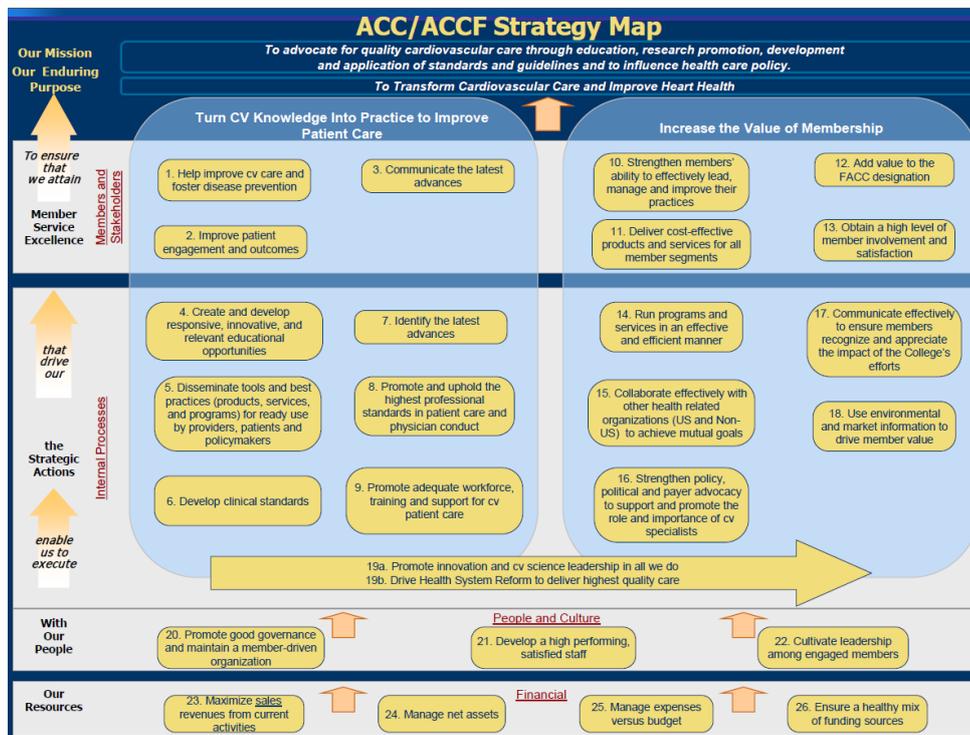
- Kollberg, B and Elg, M (2010) The practice of the Balanced Scorecard in health care services. *International Journal of Productivity and Performance Management* 60 (5), 427-445
- Lars-Goran Aidemark. (2001) The meaning of balanced scorecards in the health care organisation. *Financial Accountability & Management*, 17(1), 23-40.
- Lawrie, G and Cobbold, I (2004) Third-generation balanced scorecard: Evolution of an effective strategic control tool. *International Journal of Productivity and Performance Management*, 53 (7), 611-623.
- Marr, B and Creelman, J (2010) Managing Healthcare Performance: Best Practice at the Award-winning Northumbria Healthcare NHS Foundation Trust, Management Case Study, The Advanced Performance Institute (www.ap-institute.com)
- Marr, B and Creelman, J (2011) *More with Less: Maximising Value in the Public Sector*. Palgrave Macmillan
- Meliones, J (2001) Saving money, saving lives. *Harvard Business Review* 78,57-62
- Neely, A and Bourne, M (2000) Why measurement initiatives fail. *Measuring Business Excellence*, 4 (4), 3-6.
- Nelson E, Batalden P, Godfrey M, Headrick L, Huber T, Mohr J, Wasson J (2001) *Microsystems in Health Care: The Essential Building Blocks of High Performing Systems*. Research Project Supported by the Robert Wood Johnson Foundation, RWJ Grant Number 036103.
- Pink G, McKillop I, Schraa E, Preyra C, Montgomery C, Baker G (2001) Creating a balanced scorecard for a hospital system. *Journal of Health Care Finance* 27(3),1-20.
- Radnor, Z and Lovell, B (2003) Success factors for implementation of the Balanced Scorecard in a NHS multi-agency setting. *International Journal of Healthcare Quality Assurance* 16(2/3), 99-108.
- Rigby, D and Bilodeau (2009) *Management tools and trends 2009*. Bain and Company.
- Smith, A; Mainland, J; and Blais, I (2011) Managing strategy to enhance care for children. *Healthcare Quarterly* 14 (Special Issue – October), 21-26
- Zelman W, Pink G, and Matthias C (2003) Use of the Balanced Scorecard in health care. *Journal of Health Care Finance*. 29(4),1-16.

8. Appendix: Health Strategy Map Examples

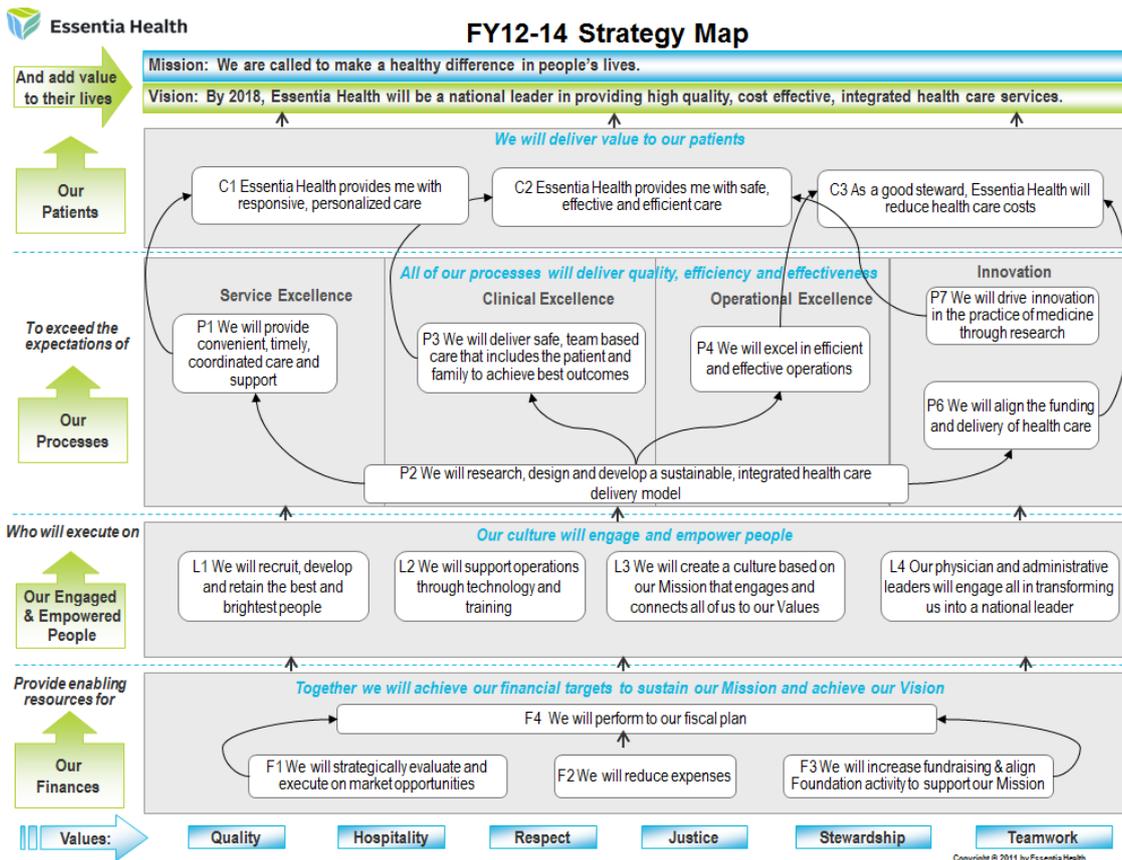
The following have been included in this review, in addition to those above in Section 5, to highlight the variability and innovation that exists with health strategy maps, as well as to stimulate thinking. Of course, it is important to remember that each organisation is unique and as such will require their own unique strategy map that defines who they are and what their priorities are.



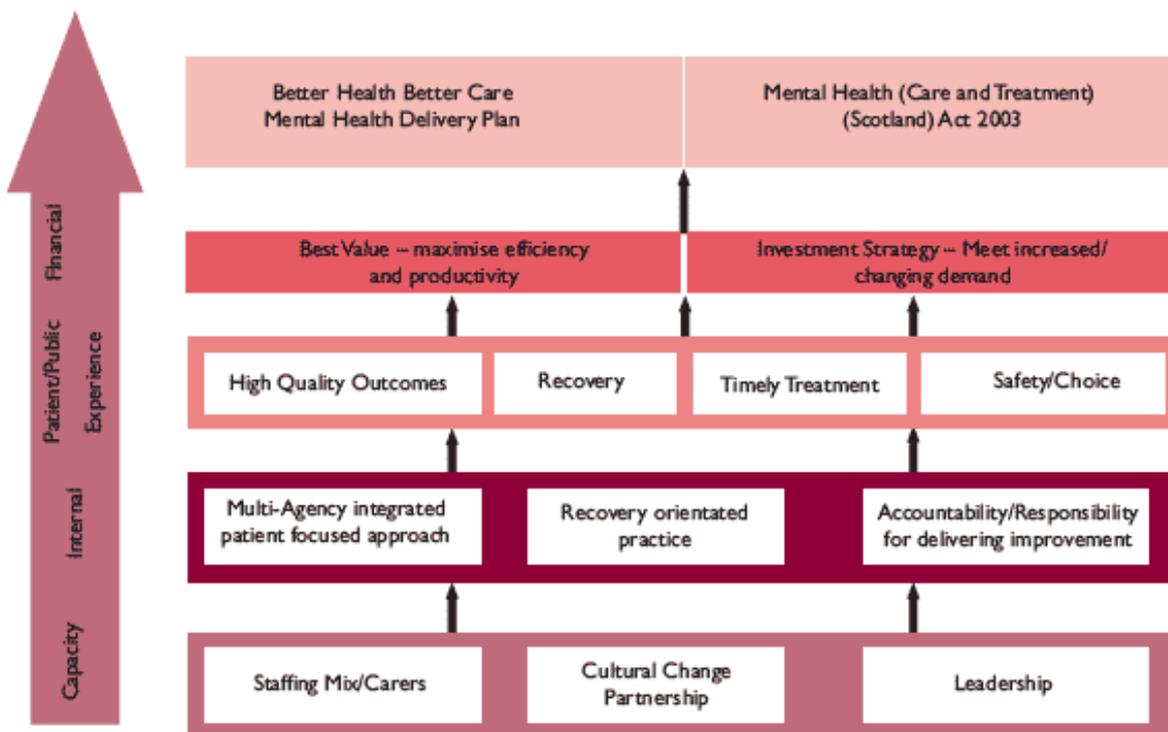
Duke University Health System USA. Used with permission. Although strictly speaking not a classical 'strategy map', this is a good illustration of management processes and alignment (their 'GPS') based on their Balanced Scorecard strategic priorities. (Source: Duke University Health System – personal communication, www.dukehealth.org)



ACC/ACCF Strategy Map; American College of Cardiology, All Rights Reserved. Used with permission. http://www.cardiosource.org/ACC/About-ACC/~/_media/Files/ACC/About/2011_Strategy_Map.aslx;

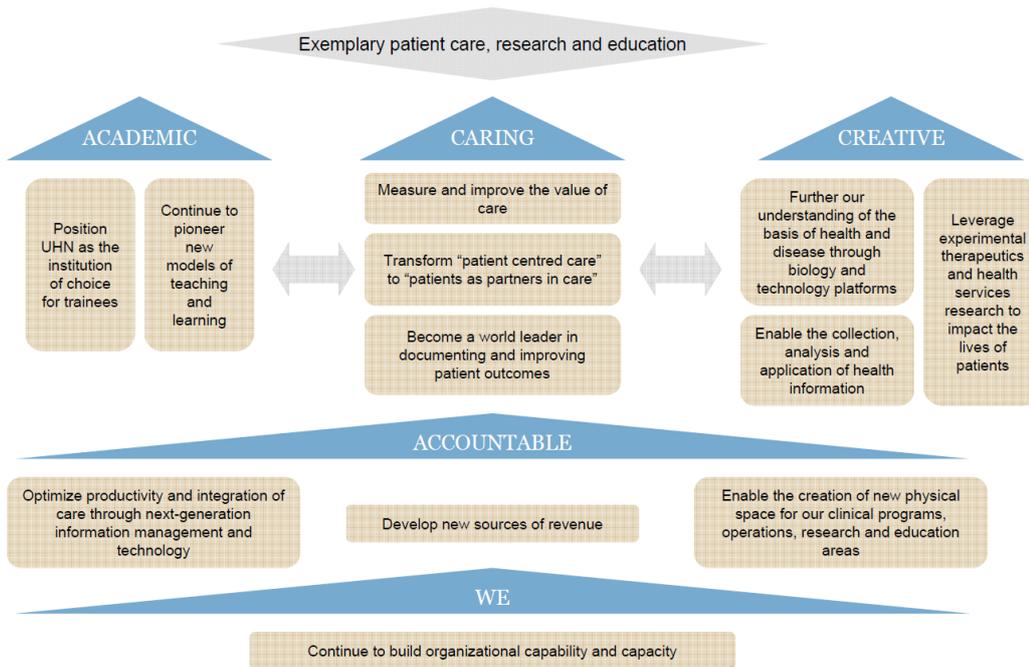


Essentia Health, Minnesota US. Used with permission. St Mary's / Duluth Clinic Health System (now part of Essentia) inducted into the Balanced Scorecard Hall of Fame 2002
 (Source: Essentia Health, personal communication, www.essentiahealth.org)

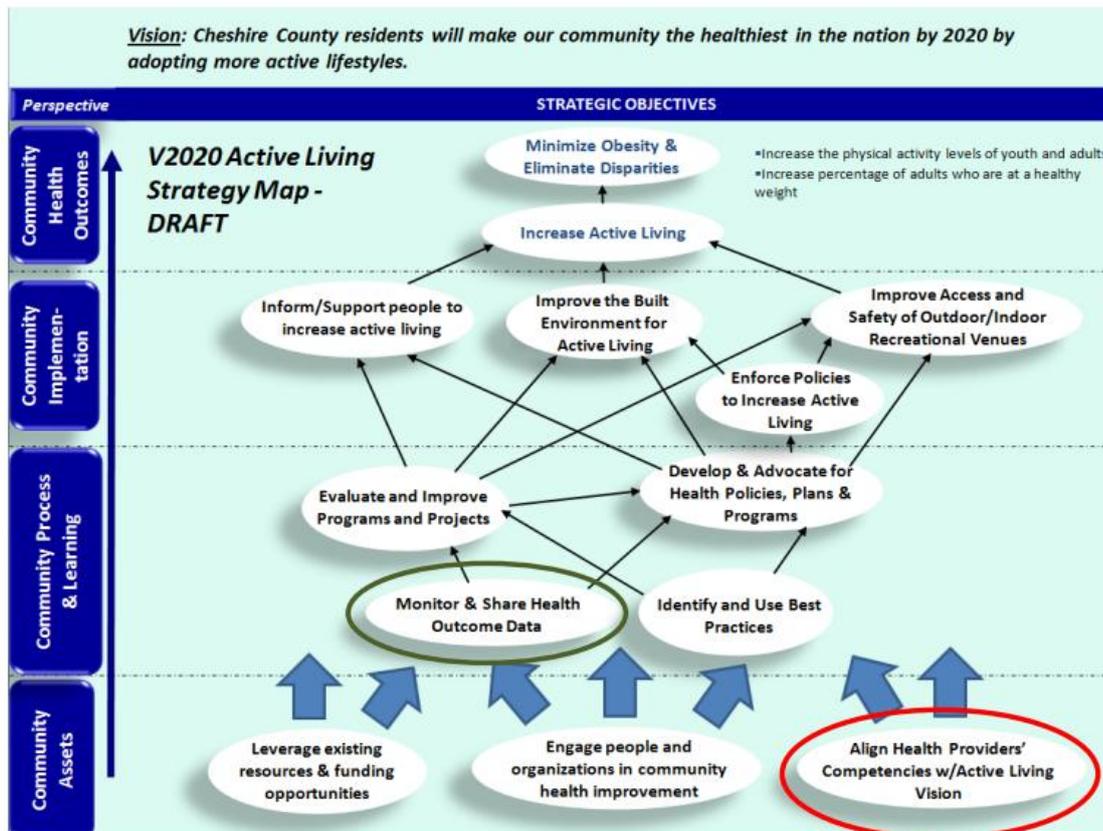


Scottish Government - overview of suggested key components for effective delivery of mental health. Used with permission.
 (Source: <http://www.scotland.gov.uk/Publications/2008/01/22113703/4> Accessed 24/1/2012)

Global Impact



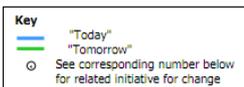
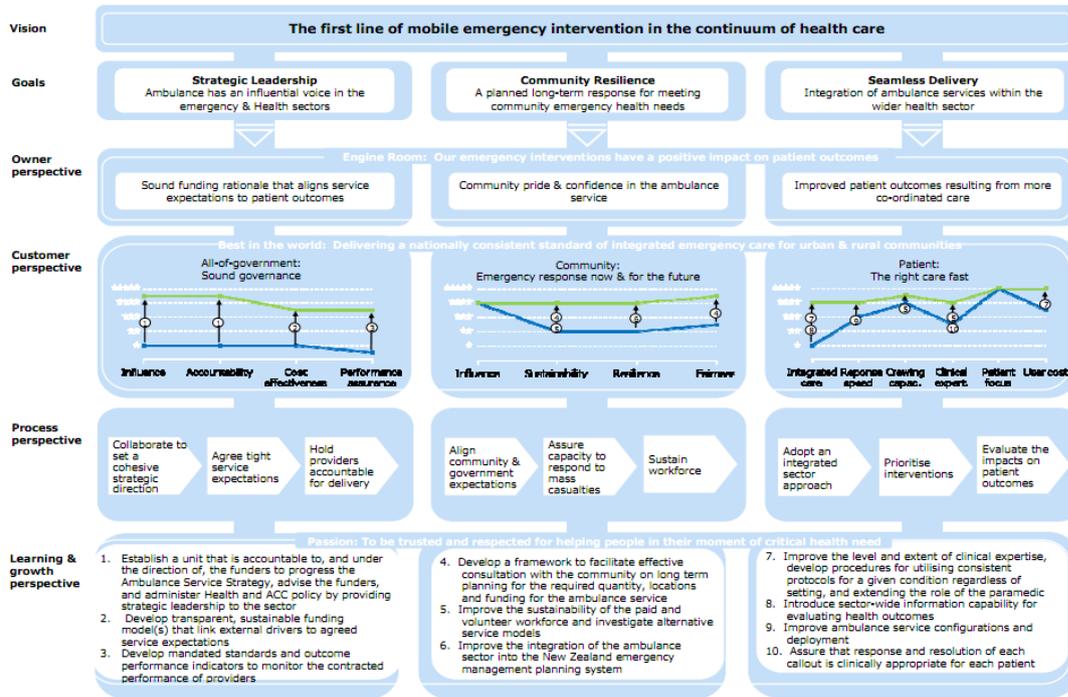
University Health Network – umbrella organisation for several hospitals in Toronto, Canada. Used with permission (Source: [http://www.uhn.ca/Patients_ & Visitors/accountability/index.asp](http://www.uhn.ca/Patients_&_Visitors/accountability/index.asp) - Accessed 24/1/2012)



Vision 2020 Community Health Initiative led by the Cheshire Medical Center (Keene, New Hampshire) assisted by the Results That Matter Team (www.RTMteam.net). Used with permission.

Source: http://www.rtmteam.net/files/CBSC_ACA_Reqmts_Hospitals_Communities_Rev3.pdf (Accessed 24/1/2012)

New Zealand Ambulance Service Strategy Map



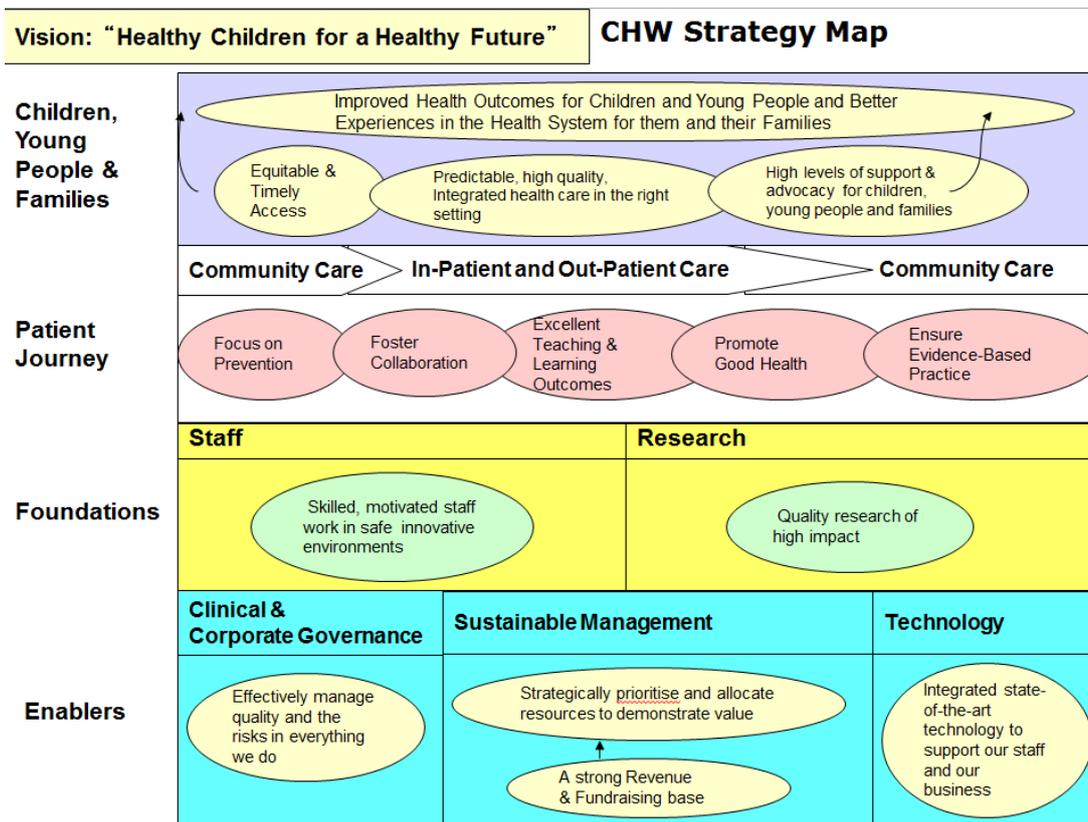
New Zealand Ambulance Service. Used with permission.

(Source: <http://www.naso.govt.nz/wp-content/uploads/2009/10/strategy-summary.pdf> - Accessed 24/1/2012)

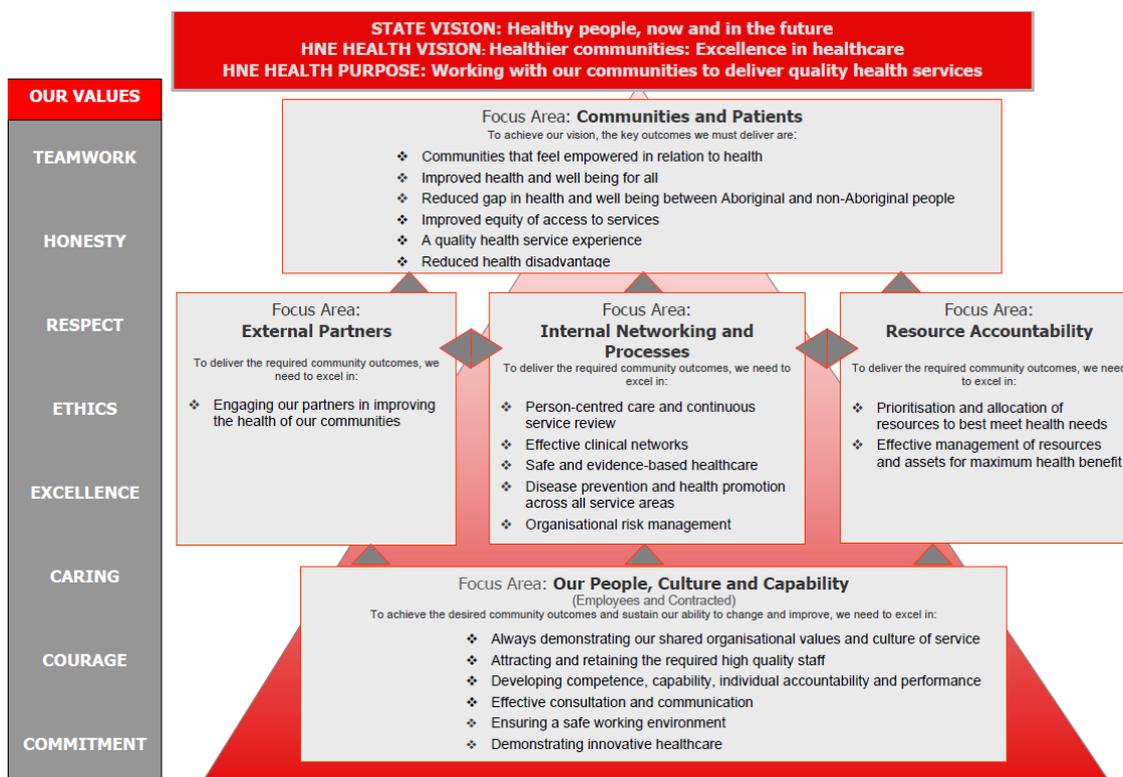
Our Vision	Quality Health Care – Right Here!		
Goals for our Patients	Quality & Patient Safety Leader	Comprehensive Specialty Care	Optimize Access to a System of Care
Goals for our People	Grey Bruce as Community of Choice	Employer of Choice Retention Strategies	Personal and Professional Development
Community Partnership Goals	Comprehensive Care through Partnerships and Integration	Enhanced Profile - Communications and Engagement	Healthcare Campus Community Development
Our Approach	Effective Use of Resources through Innovation and Continuous Improvement: People, Finances, Facilities and Technology		

Grey Bruce Health Services. Used with permission.

(Source: http://www.gbhs.on.ca/gbhs_strategic_plan_final_cct2011.pdf - Accessed 24/1/2012)



The Children's Hospital at Westmead (Sydney, Australia - www.chw.edu.au) (Used with permission)



Hunter New England Health (now Hunter New England Local Health District, Australia - <http://www.hnehealth.nsw.gov.au/>) (Used with permission)