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G Ross Baker

# The roles of leaders in high-performing health care systems



Commission on Leadership and Management in the NHS

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This paper was commissioned by The King's Fund to inform the leadership commission.

The views expressed are those of the author and not of the commission.

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## About the author

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Ross Baker, together with Dr Peter Norton, University of Calgary, led the Canadian Adverse Events study, which was published in the *Canadian Medical Association Journal* in 2004. Baker and Norton were awarded the Health Services Research Advancement Award for their work on patient safety and quality improvement by the Canadian Health Services Research Foundation in May 2009.

Ross was a member of the National Steering Committee on Patient Safety whose report in 2002 led to the creation of the Canadian Patient Safety Institute. He co-chaired a working group on methods and measures for patient safety for the World Health Organization from 2006 to 2010 and chaired the Advisory Committee on Research and Evaluation for the Canadian Patient Safety Institute from 2005 to 2010.

Ross led a study of effective governance practices in improving quality and patient safety in 2009. Results from this study have been published in *Healthcare Quarterly* and this report served as the basis for the Governance Toolkit (Effective Governance in Quality and Patient Safety) and a course for trustees developed by the Canadian Patient Safety Institute and Canadian Health Services Research Foundation.

In October 2008 Ross published a book, *High Performing Healthcare Systems: Quality by Design* that analyses leadership and organisational strategies in seven health care systems that have been successful in using improvement tools and knowledge to transform outcomes. Ross is also Associate Editor of *Healthcare Quarterly* and has edited five issues of *Patient Safety Papers*, a special edition of *Healthcare Quarterly*.

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# 1 Introduction

Studies in many industries, including health care, suggest that leadership is a critical element in organisational performance. Collins (2001) suggests that disciplined, hard-working leaders are essential to moving organisations from 'good' to 'great'. Such leaders help companies to recruit the right leadership team, develop an effective strategy and create a disciplined culture focused on creating high performance. Keroack *et al* (2007), in a study of highly ranked healthcare organisations, also identified leadership as a critical factor. Successful leaders in their study were passionate about improving quality, safety and service and had a hands-on style, making efforts to stay in tune with issues at the front line. Reinertsen *et al* (2008) argue that leadership is decisive through setting system-level aims, developing and executing strategy, aligning leadership efforts and creating the capacity for change. And James Reason (1997) and others (eg Ruchli *et al* 2004) point toward the role of leadership in instilling a culture of patient safety that creates the environment for safer care.

Leadership in contemporary health care organisations is a complex responsibility. Despite the studies noted above, the role of effective leaders and the ways in which leaders contribute to organisational success deserve more attention. Although there are many biographies of leaders, there are few detailed studies of leadership (Porter and Nohria 2010). Understanding the impact of leaders on organisational effectiveness requires knowledge of how leaders and leadership systems shape organisational strategy and behaviour, creating an environment where other members of the organisation can make good decisions. Identifying effective leadership also extends beyond the biography of individuals. Leadership in complex systems is distributed and collective, rather than only the efforts of a few individuals (Buchanan *et al* 2007, Gronn 2002). Studies of leadership, therefore, have to be placed in context. To determine what constitutes effective leadership we need to examine the direct actions and indirect influence of leaders across the organisation, examining how leaders help to shape organisational performance, particularly in high-performing systems.

Identifying such high-performing health systems and understanding the strategies and investments they have made is more than an academic issue. The practices these healthcare systems employ can inform strategy development and guide the allocation of resources in other systems seeking to improve their performance. Identifying improvements to current care delivery structures and translating approaches from high-performing systems to local delivery organisations will help to spread more reliable and cost-effective care. While there are many examples of local successes including excellent clinical services or high performing microsystems, too often these are 'islands of excellence in a sea of mediocrity' (Rogers and Bevan 2002) rather than reflections of consistent approaches to good practice. High-performing health care systems are those that have created effective frameworks and systems for improving care that are applicable in different settings and sustainable over time. But is this an achievable goal in systems that are not high-performing?

A number of scholars have identified mechanisms and strategies for health care systems seeking high performance. In a review of the literature Ferlie

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and Shortell (2001) identify four essential core properties of successful quality-improvement work. These include leadership at all levels; a pervasive culture that supports learning through the core process; emphasis on the development of effective teams; and greater use of information technologies for both continuous improvement work and external accountability. Øvretveit and Gustafson (2002) identify eight important factors that motivate and sustain quality improvement programmes. Like Ferlie and Shortell, they include leadership commitment and a supportive culture. They also add a number of structural factors (physician involvement, sufficient resources, careful programme management, and training) and a strategic focus on customer needs. Other scholars have also identified key success factors in developing high quality performance (Keroack *et al* 2007; Barron *et al* 2005; Adler *et al* 2003). While these lists are not identical, they overlap on many issues.

If scholars in several countries with differing approaches have developed similar lists of key elements, then some might wonder why more health care systems have not achieved high levels of performance and reliability. The reasons for this are complex, but they most likely stem from several factors. Firstly, many of the elements identified as supporting high performance are difficult to achieve. For example, health care organisations must obtain relevant and timely data on clinical processes in a format that guides improvement. This requires overcoming substantial technical and logistical challenges. Many organisations have found it difficult to develop skills for improving care and to create environments in which doctors 'own' improvement. These components of high-performing health care systems are not widely shared and there are many broader policy and resource barriers to developing them.

Second, in many cases these elements are interdependent. High-performing health care organisations are *systems* of interacting, interrelated and interdependent clinical microsystems. There are also supportive elements and structures that are aligned with (and sometimes pushing against) broader health system policy and structures. Fulfilling only some of the characteristics of successful systems may be insufficient for achieving high performance. Instead, high-performing systems need to develop many, if not all, of the characteristics noted above.

Third, the path forward to achieve these attributes is rarely clear. Typically, we assess a system on a set of measures and judge it to be better than others. But such an assessment is inevitably static; it does not tell us which strategies, structures and processes were critical for creating the system's high level of performance. Nor does it detail the leadership processes and strategic investments required over time.

Fourth, when offered a list of attributes associated with high-performing systems, the temptation is to create a checklist to assess other systems that wish to emulate such performance. But reality is more complex than a checklist. Developing a high-performing system is a journey that cannot be judged solely by examining current performance. Instead, we must assess the environment and challenges the organisation faced; understand the strategies and investments its leaders made; and assess the learning, mid-course corrections and current efforts made to maintain and spread high performance. Nor can we assume that the decisions one organisation made

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will be appropriate for others that face different challenges and possess different resources.

Lessons on the role of leadership in creating and sustaining high-performing health care systems require detailed longitudinal analysis of the strategies, investments and trade-offs made by leaders and their impact on organisational programmes and cultures. This paper uses cross-case methods to identify the key factors linked to the success of a small group of high-performing health care organisations in three countries and details the roles and competencies of leaders who created and executed the strategies that led to sustained levels of high performance of these systems.

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## 2 Methods

Information in this report derives from detailed case study research on five international and two Canadian regional health care systems nominated by experts as outperforming their peers. This research, undertaken by a team based at the University of Toronto, was carried out in 2006–7 and published in 2008 (Baker *et al* 2008). The goal of the project, which we called Quality by Design, was to investigate a small number of high-performing health care systems to examine their leadership strategies, organisational processes and the investments made to create and sustain improvements in care.

There are no international performance data that rank regional health care systems across countries. Therefore, in order to select the systems studied in this project we devised a nomination and selection process that relied on experts to identify health systems that have successfully invested in improvement resources and demonstrated measurable performance improvements over time. We asked 21 international experts in quality improvement and health systems monitoring to nominate health systems (defined as regional authorities, trusts and/or networks/systems of organisations, as opposed to single hospitals) they believed had made significant investments in quality improvement and had achieved demonstrable, measurable improvements as a result of those investments. These experts were chosen according to their reputations in the fields of practice and academia as being knowledgeable about systems that were successful in improvement. Among our experts were individuals from the European Society for Quality in Healthcare, Institute for Healthcare Improvement, the Joint Commission for the Accreditation of Healthcare Organizations (now The Joint Commission) as well as health system providers, researchers and decision-makers.

Fourteen experts submitted 40 nominations of 22 health systems. Of the 22 systems, 13 were in the United States, 5 were in Europe and 3 were located elsewhere. Seven systems were nominated more than once. We examined the accomplishments of these seven systems and selected five based on their capabilities in sustaining quality-improvement efforts and results. Our team collected information on the chosen systems through a review of publications and data available on the Internet and from other sources. From May 2006 to September 2007, between two and four team members paid one visit to each of the five sites. In advance of each visit, the researchers reviewed a range of background documents provided by system informants, including, for example, strategic plans, annual reports, terms of reference, improvement reports and Baldrige Award or other detailed applications for public recognition. Site visits included meetings and interviews with system leaders, clinicians, administrators and educators as well as local and national health system leaders and policy-makers.

The case studies were crafted based on thematic analysis of extensive notes recorded during the interviews, integrating details from the strategic and operational documents from each site. Key interview participants at each of the five sites reviewed the draft reports to ensure factual accuracy. A study advisory committee comprising leaders from health organisations in Canada met twice to discuss the study framework as well as case report drafts. Members of this committee provided helpful insights and guidance, and



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validated the relevance of the major themes in the Canadian context. Beyond the information collected in 2006 to 2008 additional data was obtained in January to March 2011 on several case studies as part of a project to identify key factors in high-performing health care organisations undertaken for the Canadian Health Services Research Foundation (CHSRF) (Baker and Dennis 2011). This project included the identification of 10 elements that appear to differentiate these high-performing systems.

In the following section we provide a brief description of each of these high-performing systems.

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### 3 Profiles of case study regions

*Jönköping County Council* in southern Sweden governs health services for a population of about 330,000. For more than 15 years the leadership at Jönköping has pursued an ambitious agenda of improving quality of care while limiting increases in the costs of that care. The vision of the Jönköping County Council is 'a good life in an attractive county' reflecting the goals of a holistic vision focused on quality of life, not just the delivery of care. (Øvretveit and Staines 2007).

Jönköping first drew international attention from its participation in Pursuing Perfection, an eight-year demonstration project sponsored by the Robert Wood Johnson Foundation and directed by the Institute for Healthcare Improvement (IHI). Pursuing Perfection involved seven US health systems along with a number of international health systems in an ambitious multi-year programme to create system transformation, improving care across the continuum. Each of the US systems received a large grant from the foundation, while the international systems (from England and the Netherlands as well as Jönköping) were self-funded. Coached by international experts in quality, these health systems worked to identify, implement and sustain new innovations and improvements, engaging frontline clinicians and leaders. Jönköping focused on systems improvements across the three hospitals and 34 primary care centres in their county and achieved improvements in virtually all sites, improving patient flow, asthma care, elder care, children's services, prevention of influenza and patient safety. This work streamlined care process across the system, producing substantial savings as well as improvements in care (Baker *et al* 2008, pp 1234). Donald Berwick, then the CEO of IHI, lauded Jönköping's efforts, identifying them as leaders among this highly regarded set of health care systems in Pursuing Perfection (Berwick *et al* 2005). Later analysis in Sweden suggested that substantial savings would be possible across Sweden if the strategies and methods identified and implemented in Jönköping were spread among all Swedish counties (Cederqvist 2005). Compared to the other 20 county councils in Sweden, Jönköping achieves the best overall ranking on indicators across Sweden's six goals for quality, namely: efficiency, timeliness, safety, patient centeredness and equity, and effectiveness (Jönköping County Council 2005).

**Intermountain Healthcare** (IHC) is a non-profit health care system serving patients and communities in the American states of Utah and Idaho. The system employs more than 32,000 staff in 23 hospitals and more than 150 outpatient clinics, counselling centres, home health agencies and more than 100 medical group practices and provides care to more than 50 per cent of the population of Utah. IHC has more than 3,200 affiliated physicians, including one-third who are employed by the IHC system. Intermountain Healthcare has been recognised as one of the top integrated health systems in the US, winning awards for quality of care, financial performance and use of information technology. LDS Hospital, the flagship hospital in Salt Lake City, has been repeatedly identified as one of America's best hospitals and has also been awarded Magnet hospital status by the American Nurses Association. Intermountain Healthcare's achievements have been driven by the development of clinical protocols which define care processes across the organisation, linked with a state of the art clinical information system that

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allow clinicians, managers and leaders to assess performance and identify where improvements are needed. IHC's reputation for clinical excellence is based on a strong foundation of evidence-based medicine and clinical process management that has resulted in dramatic improvements in patient outcomes and costs. Many examples of such improvement exist. Its areas of improvement include standardised care processes for the prescription of appropriate medications for cardiac patients at discharge, including beta-blockers, statins, ACE/ARB inhibitors, anti-platelet medications and warfarin. Over two years, the proportion of cardiac patients receiving appropriate medications at discharge increased by 50 per cent to more than 90 per cent, far exceeding the US national average. These process improvements at IHC have been associated with significant improvements in clinical outcomes for this group of patients, including significant reductions in mortality and readmission rates of congestive heart failure and ischemic heart disease patients (James 2005; Lappe *et al* 2004).

**Henry Ford Health System (HFHS)** is a non-profit health care enterprise based in Detroit, Michigan. It provides care to more than one million residents in the south-east part of the state. Founded by Henry Ford in 1915, HFHS was modelled after the Mayo Clinic as a healing environment with a focus on innovation. It includes five hospitals – ranging from a 100-bed mental health facility to the 903-bed Henry Ford tertiary care teaching hospital – as part of a comprehensive integrated system providing primary, preventive, acute and specialty services. The community-based services comprise 24 ambulatory care centres that include four free-standing emergency departments, ambulatory pharmacies, cancer centres, multiple eyecare centres, nursing homes, hospice services and home care. The 900 physicians and researchers in the Henry Ford Medical Group staff the Henry Ford Hospital and 24 medical centres (member hospitals also have non-employee community physicians with privileges). It is one of the largest medical group practices in the United States. The Henry Ford Hospital was included in Solucient's 2005 list of 100 Top Hospitals: Performance Improvement Leaders and was one of the Leapfrog Group's top 50 hospitals for quality and safety in the US in 2006 and 2007. The Henry Ford Health System was ranked as the top integrated health care system in Michigan and sixth in the nation in a 2004 national survey and received the 2004 Michigan Governor's Award of Excellence for enhancing patient care at Henry Ford Hospital and in its emergency department. HFHS signed up for all six interventions in the *100,000 Lives Campaign* sponsored by the Institute for Healthcare Improvement (IHI) and achieved outstanding results, including a 50 per cent reduction in surgical site infection rates; an average reduction of 0.9 days for patients on a ventilator and an overall reduction of intensive care unit length of stay by 0.65 days; and vent bundle compliance over 90 per cent. Rapid response teams made more than 1,200 calls in the first eight months with a reduction in blue alert rate by 30 per cent, hospital length of stay has reduced by 0.2 days and there has been a 15.9 per cent reduction in mortality rate at HFH since the start of the initiatives.

**VA New England Healthcare System (VISN 1)** is one of 21 veterans integrated service networks (VISNs) across the US that provide health care services to American veterans. Through its network of eight medical centres, 38 community-based outpatient clinics (CBOCs), six nursing homes, and four domiciliaries (residences for sheltering homeless veterans and for the treatment and rehabilitation of veterans needing that care), VISN 1 serves

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more than 237,000 of the 1.2 million veterans in the six New England states. It has 1,895 inpatient beds and handles more than 23,000 hospital admissions as well as 2.4 million outpatient visits a year (US Department of Veterans Affairs 2007). In the mid-1990s the Veterans Health Administration began a radical transformation process that resulted in dramatic improvements in the quality of care provided to veterans (Jha *et al* 2003). In the 1980s the VA healthcare system was criticised for warehousing veterans and providing inconsistent or low-quality care. More recently it has been singled out for its performance which often outstrips that of not-for-profit and for-profit systems in the US. The veteran population presents a challenging set of needs and circumstances since veterans' average salary is lower than that of civilians outside the VA and an estimated 35 to 40 per cent of the homeless in the US are veterans. Despite this, the VA has been successful in meeting these health care needs and improving care. Many of the principles adopted by the VA in its quality-improvement projects, including emphasis on the use of information technologies, performance measurement and reporting, realigned payment policies and integration of services to achieve high quality, effective, and timely care, have been recommended for the American health system by the Institute of Medicine. VISN 1 is recognised as one of the leading regions within the Veteran's Health Administration, and several facilities in VISN 1 have won Carey Awards (the VHA adaptation of the Malcolm Baldrige award) and received Baldrige site visits.

**Birmingham East and North Primary Care Trust and Heart of England Foundation Trust** (BEN PCT and HEFT). Birmingham East and North Primary Care Trust is one of 152 primary care trusts (PCTs) in the NHS. It commissions services from providers to meet health needs for a diverse population of 433,000 in the eastern half of England's second largest city. Heart of England Foundation Trust is one of the largest trusts in England, with more than 6,000 staff members treating 84,000 inpatients, over 350,000 outpatients and approximately 140,000 emergency cases each year (HEFT 2007). HEFT hospitals provide national and regional clinical services as well as specialised acute care, emergency and elective care. BEN PCT and HEFT have worked together to improve services and the health of their community despite considerable challenges. Some wards in east Birmingham are among the most deprived in England (Christie 2006). The south-east Asian population in this area tends to have a lower life expectancy and higher cardiovascular mortality rates among males and above-average infant mortality (BEN PCT 2006a). Despite these challenges in 2005 and 2006 the trust was shortlisted for the *Health Service Journal* award for Primary Care Trust of the Year. Its orthopaedic triage service won the *Health Service Journal's* access award in 2005 for its work in managing referrals to orthopaedics in primary care settings, decreasing patient waits and increasing patient satisfaction and access. The trust changed from the worst performing area in the country for overprescription of antibiotics to winning an award from the Royal Pharmaceutical Society for its achievement in reducing prescribing levels (BEN PCT 2006b). Good Hope Hospital's redesign of its vascular surgery clinic and community leg ulcer service won the NHS Innovation Award for Service Delivery in 2004 and the Healthcare IT Effectiveness Award's Best Use of IT in the Health Service and Best Innovative Use of Technology awards in 2005. HEFT won the Acute Care Trust of the Year award in 2006.

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Both trusts are among the national pilot sites for the Making the Shift project, an initiative of the NHS Institute for Innovation and Improvement. Making the Shift aims to move needed services from hospitals to primary care in order to better integrate access to services in the community. Teams from Birmingham worked on lower back pain management, heart failure and integrated continence services. They have designed clinics and care paths to co-ordinate care in the community by using providers from several disciplines and patient education programmes as well as by decreasing waiting times and unnecessary referrals to specialists. In addition, the musculoskeletal orthopaedic triage service was awarded a *Health Service Journal Award* in 2005 for its efforts to improve service using extended scope physiotherapists who triage patients for all conditions for which a GP feels an orthopaedic consultation is required. Team members designed and implemented care pathways that reduced waiting times and routine referrals to orthopaedics and has resulted in improved access and patient satisfaction levels. Another initiative, Birmingham OwnHealth, involves telephone-based care management in the community for more than 900 patients with chronic conditions (diabetes, heart failure and coronary heart disease). Care managers at Birmingham OwnHealth can each support up to 200 patients, educating them about their conditions and beneficial lifestyle changes to promote self-management of patients' conditions, thereby reducing avoidable morbidity and mortality as well as reliance on acute services. Evaluations suggest that many patients in this programme have altered their health behaviours, leading to a decrease in unscheduled care utilisation (acute care admissions and accident and emergency department and GP visits). Satisfaction with the quality of the service was reported by 90 per cent of participants (Birmingham OwnHealth 2006).

### *What factors account for the success of these high-performing systems?*

Detailed evaluation of the experiences of these five health care systems suggests a number of critical strategies and investments that contributed to their success. Among the most important of these strategies is consistent leadership. The following section describes each of these themes and then examines the ways in which leadership is linked to these themes. This section draws upon more recent analysis in a working paper by Baker and Denis (Baker 2011) as well as the detailed case studies in Baker *et al* 2008.

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## 4 Key themes underlying high-performing health care systems

- Consistent leadership that embraces common goals and aligns activities throughout the organisation.
- Quality and system improvement as a core strategy.
- Organisational capacities and skills to support performance improvement.
- Robust primary care teams at the centre of the delivery system.
- Engaging patients in their care and in the design of care.
- Promoting professional cultures that support teamwork, continuous improvement and patient engagement.
- More effective integration of care that promotes seamless care transitions.
- Information as a platform for guiding improvement.
- Effective learning strategies and methods to test improvements and scale up.
- Providing an enabling environment buffering short-term factors that undermine success.

**Consistent leadership that embraced common goals and aligned activities throughout the organisation.** All of these systems have had strong senior leadership, but leadership in these systems is also distributed and collective (Buchanan *et al* 2007). And while all have benefited from CEOs who have embraced the philosophy of health care improvement, most of these systems have had influential thought leaders (Göran Henriks in Jonköping, Brent James at Intermountain, Vinod Sahney at Henry Ford) who held key roles and worked closely with their CEOs and other senior leaders in developing strategy and implementing new activities in these systems.

**Quality and system improvement as a core strategy.** Transformation is a slow process that requires a clear and sustained strategy over time. Each of the systems described above has worked for a decade or longer in developing the capabilities to improve care delivery and spread new practices across their systems. The need for a long-term perspective requires a deliberate and sustained strategy focused on improving quality and services. Jönköping County Council in Sweden, for example, has focused on achieving strong financial performance combined with a strategic emphasis on quality improvement for more than 15 years. In so doing, it has sought to put patients and clients first, using the fictional persona of Esther to explore needs, improve care and overcome conflicts between providers. Comparisons of the performance of county councils in Sweden on a range of measures show that Jönköping comes out towards the top of the range on most measures (Cedarqvist 2005). Intermountain Healthcare has recently been recognised by President Barack Obama and others as a model in providing high quality health care at lower than average costs. Intermountain leaders have helped the system to realise its mission of striving for 'excellence in the provision of health care services to communities in the Intermountain region'.

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Sustained efforts to analyse and improve care have yielded groundbreaking results in many areas. Henry Ford Health System began to integrate quality improvement knowledge and tools into its core programmes in the late 1980s and has maintained an emphasis on this strategy for more than 20 years despite leadership changes.

Few quality initiatives yield breakthrough results in short timeframes. Instead progress tends to be incremental over time. Leadership is critical for creating a 'constancy of purpose' (Deming 1986), maintaining an unwavering focus on improving care systems and outcomes.

**Organisational capacities and skills to support performance**

**improvement.** In term of skills development, all these systems illustrate significant investments in developing skills and capabilities for improvement. A concrete expression of this investment at Jönköping is Qulturum – 'a meeting place for quality and culture' – that serves as a centre for learning and quality improvement. By 2006 almost half of the 9,000 staff employed by the county council had received quality improvement training at Qulturum. At Intermountain Healthcare, the advanced training programme (ATP) has become a necessary component of leadership training and advancement. The ATP provides education in quality improvement theory, measurement and tools, health care policy and leadership. Brent James, the highly respected quality leader at Intermountain, devotes a large portion of his time to teaching in the programme and has recruited a stellar faculty from within and outside Intermountain Healthcare. Birmingham East and North PCT created a strong programme of organisational development that built staff capabilities. One of its predecessor organisations, Eastern Birmingham PCT, had a history of investing significant time and energy in organisational development (Beedon and Christie 2006). With the assistance of an organisational development consultant the CEO works in a very hands-on fashion to ensure as many staff members as possible are engaged in a meaningful way in shaping the organisation. Birmingham has also had close links with the NHS Institute for Improvement and Innovation.

Creating and sustaining significant improvement requires the management and implementation of multiple changes across the system. Efforts are made to renew the organisation of work, to enhance skills among staff and to change the vision that drives the delivery of care and services. Strategies to engage patients or customers through various mechanisms (using a virtual patient in Jönköping and stories of patients' experiences at several other systems) play an important role in shifting the mindset of providers for improvement. Skills development for staff incorporates improvement techniques and sharing of a common vision that will support improvement efforts. Many of these systems also developed an alignment of organisational structure and capabilities with improvement objectives. For example, Intermountain developed a structure in the mid-1990s where development teams at the organisational/clinical levels and programme management teams at the regional level played a key role in driving the improvement strategy.

**Robust primary care teams at the centre of the delivery system.** Many health system commentaries have identified the development of a more effective primary care system as a vital step in creating a better performing health care system overall (Nutting *et al* 2011; Nasmith *et al* 2010). The Quality by Design case studies illustrate the importance of a strong, well-

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integrated primary care system to the performance of the larger system. In Jönköping there has been an emphasis on improving system co-ordination and strengthening primary care to ensure that patients receive the right care. Jönköping embraced the idea of 'microsystems' (Nelson *et al* 2007) as a core unit for improvement both in primary care and hospital based practice. Jönköping reduced the number of hospitalisations for paediatric asthma from 22 to 7 per 10,000. Jönköping's rate of influenza vaccination also increased by 30 per cent (over four years), translating into substantial reductions in acute care hospital admission, and morbidity and mortality for the elderly population.

Primary care is one of the priority programmes at Intermountain Healthcare and has been a focus in clinical protocol development where a team of clinical and process experts generate care process models informed by evidence of best practice and feedback from clinical colleagues. The primary care clinical programme includes a team focused on diabetes mellitus, composed of frontline primary care physicians and nurses along with diabetologists. Together the team reviews current practices and new research findings, and helps to integrate the care process model into the decision support system (James and Lazar 2007)

At Henry Ford Health System, centred in the heart of Detroit, effective primary care is a critical strategy for managing costs as well as improving outcomes. In 2004 HFHS and the big three automobile companies launched a major initiative to improve management of heart failure, coronary artery disease, diabetes and depression. Led by an experienced physician, the demonstration project emphasises clinical micro-system redesign and the implementation of electronic prescribing in clinics. The focus is on at-risk patients whose disease conditions are not under control because of risk factors such as blood pressure, glucose, obesity, smoking and medication use. Like Henry Ford, BEN PCT has also emphasised chronic disease management with the development of a number of innovative strategies, including Birmingham OwnHealth, and local population health programmes focused on nutrition and healthy behaviours.

**Engaging patients in their care and in the design of care.** Bechtel and Ness (2010) note that 'a truly patient-centred health care system must be designed to incorporate features that matter to patients-including "whole person" care, comprehensive communication and co-ordination, patient support and empowerment, and ready access. Without these features, and without consumer input into the design, ongoing practice, and evaluation of new models, patients may reject new approaches'.

Jönköping's use of virtual patient Esther symbolises the importance of care redesign focused on the needs and preferences of patients. In its initial development, the idea of Esther was used to focus discussions of system changes on patient needs. Today, there are 'Esther coaches' who help to bring the patient perspective into daily practice. These coaches are primarily nursing assistants charged with helping their colleagues to stay focused on improving care to serve the need of patients.

**Promoting professional cultures that support teamwork, continuous improvement and patient engagement.** Underlying the achievements of these systems is a commitment to building a professional culture that encourages improvement, patient engagement and teamwork. Former Jönköping CEO Karlsson's message to staff that everyone has 'two jobs:



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improving care as well as providing care' underscores the transformation. It was an expectation at Jönköping that all staff members would be responsible for improving work and that information and results about performance would be transparent (Jönköping County Council 2004; Karlsson 2009). Large-scale education and organisational development efforts were linked to quality initiatives so that staff learned new ideas and new philosophies as well as new tools. The Jönköping Qulturum symbolises the central nature of this effort to the Jönköping strategy, as does the advanced training programme at Intermountain. Both Brent James (at IHC) and Göran Henriks (at Jönköping) saw education as a critical lever for changing culture and both devoted large portions of their time to these efforts.

Teamwork and the creation of high-performing micro-systems are also critical to transformation. Creating new relationships based on high levels of interaction, trust and parallel work streams instead of the traditional hierarchical relationships between staff depends on new values and new ways of daily work. While the changes needed at the micro-system level require strong local leadership, these teams and leaders require support from senior leadership to develop leaders in the micro-systems (Batalden *et al* 2003).

**More effective integration of care that promotes seamless care transitions.** While improvements in the organisation and operations of micro-systems create better results, patients rely on multiple micro-systems in the hospital and community. Recognising the interdependence between system levels means that quality improvement must also improve transitions of care between parts of the system, improving the transfer of information and co-ordination of care. Intermountain Healthcare's emphasis on clinical process and clinical integration explicitly recognises the ways in which frontline clinical micro-systems are linked together, forming larger 'meso-systems' and programmes of care. These meso-systems 'serve patients with specific needs, integrating sequential processes and supporting parallel clinical units across the care continuum' (James and Lazar 2007, pp 96).

Like Intermountain, the Veterans Health Administration has placed a considerable emphasis on clinical service lines that manage primary care and hospital-based services. Performance management is linked to service lines and improvement strategies target those areas that fail to reach expected performance in terms of access, patient satisfaction and quality of care.

In Birmingham the primary care and hospital trusts created a joint initiative they labelled Working Together for Health. The physical embodiment of the initiative is the Partners in Health Centre which provides a focus and home for holistic, multi-provider care programmes aimed at self-care and education of patients so that they can take responsibility for their own health. The programmes mix clinicians from primary and secondary care (spanning both organisations) and provide support services not available in hospitals or primary care for patients with chronic conditions such as diabetes, chronic obstructive pulmonary disease, heart failure and degenerative musculo-skeletal disease.

Jönköping developed a number of system diagrams that were used to help understand the relationships between elements of the system and, in particular, between different levels of care. Mats Bojestig, the senior medical leader at Jönköping, notes the important shift from a focus on functional parts of the system (hospital, primary care, pharmacy etc) to a patient-

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focus flow across these parts. Following Deming and others, the Jönköping leaders sought to see care as activities and parts of processes organised after prioritised patient values (Bojestig 2010).

**Information as a platform for guiding improvement.** Intermountain Health Care in Utah possesses one of the most sophisticated clinical information systems in operation anywhere. The system is designed to provide information and decision support at the point of care, but also to support analysis at the micro-system, programme, regional and system level and to link clinical information with financial and other relevant data. Clinicians in each programme have access to close-to-real-time data that can be used to identify improvement projects and track the impact of changes made to improve care, for example in monitoring the care of asthma and diabetes patients in primary care, as well as outcomes of patients receiving care in Intermountain hospitals (James and Lazar 2007). Information is important in Intermountain Health Care, both within clinical micro-systems to help them improve performance, and in the organisation as a whole as a means of linking between micro-systems. The full benefit of the clinical informatics system at Intermountain comes from its connection to quality improvement activities and the broader strategy to develop models of clinical processes. The effective use of information is facilitated by leadership training for clinicians and training in quality improvement methods.

The Veterans Health Administration (VHA) is another recognised leader in the implementation of electronic patient records that have helped to co-ordinate patient care as well as enabling the development of indicator measurement systems used for accountability and quality improvement. Clinical integration in the VHA is facilitated by setting the same standards across the network; and investing in information technology. Despite some initial resistance to mandatory electronic charting these changes have contributed to improvements in care delivery.

The VHA's electronic record system made possible the implementation of clinical practice guidelines (CPGs) and clinical reminders, first in primary care and then in specialty and acute care. A service -line sponsor and subject matter expert are assigned for each reminder that is developed. The system can produce reminder reports by provider within each facility and comparisons across centres. The reminder programme has been very successful and helped to make VISN 1 among the leaders in VHA primary care performance measures.

While Jönköping does not have access to a fully developed electronic clinical information system, it is very focused on identifying and using measurement to support improvement. The Jönköping leadership employs a balanced scorecard of measures in four domains: financial, customer experience, internal processes and institutional learning, to set and monitor system goals (Bodenheimer *et al* 2007). Jönköping has developed a system of monthly measures using administrative data and manually collected information that acts as a local warning system. Sweden maintains a strong system of national clinical registries which have also proved useful as a knowledge base for improvement (Baker *et al* 2008). Local improvement teams collect their own measures of clinical performance to track their progress toward clinical goals.

**Effective learning strategies and methods to test and scale up.**

Jönköping has also been enormously successful in its efforts to identify new

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methods and tools and to adapt them to local environments. Their leaders have sought out experts and experiences in many different settings and worked to adapt these ideas to Swedish health care. For example, Jönköping has held a Microsystems Festival for several years to learn how to optimise micro-system performance and to learn from the experiences of teams in the United States and elsewhere.

BEN PCT and HEFT have actively sought out other organisations, both within and outside healthcare, from which they could learn. For example, BEN PCT representatives visited the Body Shop to learn about franchising models and then had sessions with the trust's GPs aimed at helping them to look at their practices as franchises. The knowledge – 'the idea that you didn't get money for nothing, that there are standards and expectations' – made a big difference with GPs. The trust began to tie incentives to clinical practice change; for example, to encourage inclusion of smoking cessation and diet counselling as well as preventive care. BEN PCT and HEFT have also been participants in the Kaiser Permanente NHS Beacon Sites Programme that linked three NHS sites to Kaiser Permanente with the goal of learning and transferring Kaiser Permanente work in improving care for people with long-term transitions, integrating primary and secondary care and strengthening the role of clinical leaders (Ham 2010).

Most of these high-performing systems have had close linkages with the Institute for Healthcare Improvement and Birmingham has had a close relationship with the NHS Institute for Innovation and Improvement. These relationships have been synergistic. Intermountain Healthcare's work on surgical infection and acute myocardial infarction, among other areas, were important sources of ideas for the IHI 100,000 Lives Campaign and Jönköping has been part of the leadership for the IHI work on 'triple aim' focused on improving care and patient experiences while limiting or reducing overall health expenditures.

**Providing an enabling environment buffering short-term factors that undermine success.** All these systems have faced major challenges. Adopting a long-term strategy for improving care, working to develop talent and create a focus on providing patient-centred care are not always easy in a broader national environment that rewards short-term results. An important part of the success for these systems has come from their leaders' abilities to identify larger forces that shaped their environments and to respond effectively to these forces. Brent James, David Burton and others at Intermountain saw the power of linking an effective clinical informatics platform to sophisticated knowledge of process and systems improvement and convinced the Intermountain leadership to invest in building the infrastructure and human capital to recognise this goal. Jönköping has managed to maintain its focus on improving care despite changes in economic climate and political changes that might have reversed its efforts to create a co-operative system-wide focus on redesigning care. Sophia Christie, Chief Executive at Birmingham East and North PCT and Mark Goldman, the Chief Executive at Heart of England Foundation Trust, worked to create a strategy for improving services, balancing the need for collaboration in a relationship that requires commissioning for services and a highly regulated policy environment. Both CEOs needed to convince their boards of the value of co-operation to improve patient care, despite the financial disincentives and national policies that created obstacles. For example, the trusts collaborated to avoid inpatient admissions by providing

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more comprehensive community-based services, yet the acute care trust stands to lose revenue by doing so. Complicating their management responsibilities even further, significant restructuring occurred around this time in both trusts. The amalgamation of Eastern Birmingham PCT and North Birmingham PCT to form BEN PCT raised cultural issues, the lack of a shared acute care strategy and resistance from North Birmingham PCT to dealing with patients from the eastern wards. HEFT took over responsibility for (and then merged with) Good Hope Hospital Trust, which had considerable financial problems. Both CEOs observed that they sacrificed progress in the trusts for which they were originally responsible as they worked to straighten out issues arising from the later additions. Creating high performance requires a constancy of purpose and an ability to maintain a focus on long-term goals even when they pose short-term obstacles.

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## 5 Leadership challenges in high-performing organisations

Ron Heifetz defines leadership as 'accepting responsibility to create conditions that enable others to achieve shared purpose in the face of uncertainty (Heifetz 1994). Leadership in high-performing health care systems plays a critical role in the development of strategies, the execution of initiatives to build capability, the development of closer linkages between micro-systems and levels of care, and in the buffering of external influences that threaten to dilute or undermine leadership efforts. In each of the 10 key themes outlined above, leaders help to define the issues, guide their implementation and adjust strategies to adapt to new challenges and changing requirements. In addition to these 10 issues, there are a series of other leadership skills that are necessary for leaders in high-performing health care systems. These include the wise use of performance measurement to manage local resources, the recruitment of local leaders, especially doctors, building a dynamic view of the system that helps to align activities, and ensuring that the transformation endures by preparing for the succession of the next generation of leaders.

### *Using performance measurement wisely*

Leaders in high-performing health care systems rely on performance measurement to manage relationships and to assess the impact of efforts to improve performance. But inappropriate and blunt uses of measurement can undermine relationships and create perverse incentives that limit performance (Freeman 2002; Marshall and Davies 2000).

Performance measures have been an important element in managing the contracts between primary care trusts and service providers in the NHS. BEN PCT and HEFT, together with representatives from neighbouring Solihull PCT, held tripartite performance management meetings every three weeks to review scorecard targets and action plans, assess market changes and impacts of national policies and agree on ways of implementing primary care pathways. These meetings were often very challenging; as the CEO of BEN PCT commented, 'It's the edgy bit where the arguments happen'. Potentially conflicting interests arising from national policies create significant tensions; for example, an increase in hospital admissions might be positive as a revenue generator for the acute trust but is red-flagged as a cost increase for the PCT. BEN PCT's multiple roles also contribute to the tension. As a commissioner, it is responsible for monitoring how costs and income are managed; as a partner, for maintaining constructive relationships with providers; and as a provider of some services in the area, for avoiding perceptions of conflict that could arise from being both fundholder and service provider. However, because the trusts have invested so much in developing their partnerships they are able to have productive discussions about the strategic issues that cut across the region, while avoiding breaching NHS rules about collusion.

The performance management issues in the NHS are mirrored by similar arrangement in the Veterans Health Administration. When he established the VISNs, then Under Secretary for Health in the US Department of Veterans

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Affairs Ken Kizer also introduced stronger accountability with an emphasis on standardising and quantifying performance (Young 2000; Jha *et al* 2003). Detailed performance contracts with agreed goals and standardised measures were implemented first between VHA headquarters and the network directors and programme officials. Now there are similar contracts within all levels down to local service line managers within the facilities. Each network monitors a basic set of measures for the same elements of quality, cost and access. When they began in the 1990s, they worked with 20 measures. Now they are tracking hundreds. The number of those measures used reflects evolving views in the VHA about organisational priorities and the range of issues that can reasonably be managed.

VHA performance measures and goals are set by national headquarters in Washington, DC. But VA facilities operate in different environments with varying needs and resources, so there is a tension between local priorities and national goals. In order to 'make sense' of the growing number of accountabilities, leaders at the White River Junction VA Hospital developed their own performance measurements and 'stoplight' report. While national measures and goals provide the broader context for local activities, leaders need to interpret these measures and goals in light of local resources and needs.

### *Implementing changes means recruiting and growing local leaders, especially doctors*

Health care professionals, especially doctors, play a critical role in the redesign of care delivery. A number of studies have shown that little real progress is possible in clinical process redesign without the involvement of doctors and other clinical staff (Bowns and McNulty 1999; Ferlie and Shortell 2001). Thus effective leadership for improvement requires engaging doctors to participate in redesign efforts and to build support for these activities among their colleagues. At Intermountain Healthcare doctors took key leadership roles in each clinical programme. These medical directors worked with the frontline clinical staff, identifying issues in the implementation of clinical process management, setting clinical goals, and holding clinical teams accountable for performance. At Jönköping, doctors played key roles in the redesign of services and the integration of care across the continuum in paediatrics and later in seniors' health services. The Birmingham leaders were also conscious of the need to develop doctors as leaders and to support them in the redesign of services. Doctors hold major leadership roles in the trusts. For example, HEFT has implemented 'a very medical model'. The HEFT CEO, who is a surgeon by training, remarked, 'We learned this from Kaiser, if you don't have the physicians on board with you, you can't succeed'. One of the senior managers observed, 'We have a pretty powerful clinical management system. Most of the money is in the hands of doctors'.

### *Leaders help to align activities across the organisation and help to create a 'picture' of the system*

Much of quality improvement work is project focused, but leaders in high-performing systems help to integrate and align these efforts by creating a view of the whole system and relating local improvements to that picture of the system. Such efforts help to prioritise projects at a local level

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and to identify the investments needed in supportive activities such as leadership development and human resources. The Jönköping leadership developed a 'systems view' of health care across the county to facilitate their discussions and provide a means to explain the nature of new strategies and investments. This view of the system helped to illustrate the linkages between local improvement drivers such as training and how they supported patient care activities in the hospitals and clinics. At Henry Ford Health System and the VA VISN 1 leaders used the Baldrige criteria (also translated into criteria for the VA Carey Award) to facilitate dialogue about strategy and investment. HFHS's strategic framework has become the focus of cascading communication about the strategic goals throughout the entire organisation, featuring huge kick-off events attended by all managers and followed by discussion of a video of the key goals in every unit and department. The importance of customer service and excellence across HFHS is central to the strategic focus at Henry Ford.

### *Leadership succession is crucial*

The long timeframes required to build the capabilities for improvement and to transform clinical systems mean that leadership transitions must maintain and enhance these foci, not diminish them. Gail Warden was the President and CEO of the Henry Ford Health System for 15 years. When he retired in 2003 he was followed in the role by Nancy Schlichting, previously the executive vice-president and chief operating officer. Scott Parker, CEO at Intermountain Healthcare from the late 1970s, was succeeded in 1999 by Bill Nelson who had been the system CFO. Sven-Olof Karlsson was succeeded in 2008 after nearly 20 years as Jönköping CEO by Agneta Jansmyr. Jansmyr had been director of care administration in Vaxjo, Sweden, before this but had worked for Jönköping County Council in operations and quality improvement for many years before that. In all these cases leadership transitions preserved and strengthened prior strategic commitments. Internal appointments (or appointments of individuals who had previously held important roles in the organisation) ensured continuity. New leaders did initiate changes, but these were changes that deepened and extended the directions of the leaders they replaced. Just as important, the succession of new leadership was made while preserving the roles of improvement champions such as Brent James at Intermountain and Göran Henriks at Jönköping. Leadership has also changed in VISN 1 and White River Junction VA and at the Heart of England Foundation Trust. Whether these leadership changes will alter or sustain previous leadership focus is unclear.

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## 6 Conclusions

Health care organisations are large, complex and difficult to manage. Leaders in high-performing health care systems must balance a wide range of issues, ensuring fiscal health while investing in staff, programmes and technology. Modern quality improvement techniques offer tools for analysing and improving systems of care, but these tools must be learned and applied at the frontline and projects must be linked to create system-wide improvements, scaling up small initiatives to create more effective systems focused on better outcomes, improved experiences of care and more effective use of resources.

A detailed review of five high-performing health care systems suggests that there are a range of common factors that contribute to success. High performance is rewarded by consistent leadership that embraces 'quality as a business strategy', building staff capabilities to support performance improvement and framing success as better care for patients. High-performing systems emphasise primary care and build systems that include secondary and tertiary care that links with strong primary care. Effective micro-systems support quality improvement efforts to improve processes of care. Information, particularly electronic clinical information systems, help to support these efforts. But information must be linked to core work processes and inform decisions about the care of patient cohorts and clinical programmes. Knowledge about improvement needs to be integrated with clinical expertise; the key to success lies in the engagement of staff, particularly doctors, in understanding their current performance and identifying how to improve care, learning from others and adapting innovations to fit their care environments. Leadership in high-performing organisations is distributed throughout these systems, but senior leaders set the strategy, ensure the execution of strategic initiatives and develop leaders to maintain their efforts. There are many tools used by effective leaders, but the key to success appears to lie in leaders' abilities to set ambitious goals, engage staff, and invest in the ongoing improvement of systems of care. Short-term goals help to motivate performance, but long-term success relies more on a broad vision, engagement of staff, and investments in improving local performance. Leaders in these systems must understand the complex dynamics that influence change, create engaging transformational goals and help staff in working toward these aims.



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