

# Aligning the Stars: Using Systems Thinking to (Re)Design Canadian Healthcare

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t has become commonplace to refer to a "Canadian healthcare system," implying some monolithic system of prevention and care, yet failing to acknowledge its various subsystems, some well performing and some not. This article argues that a more nuanced understanding of healthcare systems, based in the principles of Systems Theory, provides a useful lens to understand our current system(s) as well as those that are possible, the principles of design, and the levers available to leaders and policy-makers as we implement our healthcare strategies for

Canada. These levers include the *structuring* of healthcare organizations and systems, *human resources, incentives, information* and *decision support,* and ultimately, their joint impact on a culture of accountability and fiscal and clinical performance.

To help us understand the power of formal Systems Theory, we begin by describing two remarkable organizational experiments in healthcare, one which centres on a large, complex healthcare system – the Veterans Health Administration (VHA) in the U.S. – and the other on a more modestly sized healthcare system – Canadian Radiation Oncology Services (CROS).<sup>2</sup>

<sup>1.</sup> We use "system" and "organization" interchangeably here. Thus, a hospital may typically be thought of as a formal organization, but also as a system for care delivery.

<sup>2.</sup> CROS was described in detail in a recent issue of this journal (see McGowan 2003).

We then introduce a practical decision tool for health system designers, the Star Model of system design. This model suggests that well-functioning macro-systems for healthcare are made up of interdependent subsystems that are mutually aligned. It also suggests that virtually all systems are "nested." Thus, for example, hospitals are made up of programs, health regions of hospitals' community clinics, provinces of health regions, etc. Further, all of these organizational systems comprise the micro-systems, or the levers referred to above. The goal of this article is to offer health system leaders a practical approach to diagnosing performance management problems at all levels in the health system and (re)designing health systems and organizations.

#### THE VETERANS HEALTH ADMINISTRATION

The transformation of the Veterans Health Administration (VHA), the largest integrated healthcare system in the United States, provides a remarkable learning opportunity for Canadian healthcare leaders and policy makers. Most accounts of the VHA transformation have focused on issues of leadership and change management. We take a different approach here, using the VHA to illustrate the system design levers available to health leaders.

The VHA in 1994 was responsible for the care of approximately 25 million veterans, and was made up of

- 172 hospitals.
- 132 nursing homes.
- 73 home care programs.
- 40 residential care programs.
- approximately 600 outpatient clinics.

The VHA's problems in 1994 were enormous when President Bill Clinton appointed Dr. Ken Kizer as its leader. Dr. Kizer inherited an organization infamous for low-quality, difficult to access, high-cost care. Also, the VHA was out of sync with trends in the sector. It was a system based on inpatient care, in contrast to substantially less expensive and patient-friendly ambulatory care. Its workforce was dominated by (more expensive) specialists rather than primary-care physicians. Finally, like many publicly funded health systems throughout the world, its client base was increasingly needy and growing in numbers.

With a President committed to healthcare, and a Congress (and private sector employers) gravely concerned about healthsector costs that were spiralling out of control, the governmentfunded VHA found itself at a tipping point. It would either lose its hegemonic position as the provider to veterans as Congress cut its budget and sought private sector providers, or it would have to mount an unprecedented transformation. Thus, the VHA faced a point of crisis - or in other words, a very real incentive to change strategy.

Under Dr. Kizer, numerous changes were made that, in retrospect, well illustrate the power of Systems Theory. One of the first areas that Dr. Kizer focused on was structural change at the VHA. In short order, we saw the creation of 22 Veterans Integrated Service Networks (VISNs), each providing the full continuum of care. These were essentially health regions that were charged with caring for between 150,000 and 200,000 clients per year, and were made up of 7 to 10 medical centres, 25 to 30 clinics, 4 to 7 nursing homes, and 10 to 15 counselling

Decision-making authority was also dramatically changed. Specifically, we saw the devolvement of decision-making to the 22 VISN heads - after years of micro-management by Washington. A key decision was made to make the VISNs the basic budgetary unit for which network directors were accountable. The "corporate" centre's role (i.e., Washington's) was thus not to make operating decisions that could be best made in the community, but rather, to redefine itself such that its major functions were knowledge transfer (to avoid redundancy of operations and to disseminate "best practices") and resource allocation. This structural change also allowed for the establishment of a coordinated national formulary.

The decentralization of decision rights and the dissemination of knowledge marked the beginning of the performance management process. Specifically, the VISNs were made accountable for the performance they could control. More specifically, Dr. Kizer and his senior leadership staff implemented a performance measurement system that rewarded according to performance outcomes (i.e., they discriminated between good and poor performance). Importantly, both substantively and symbolically, Dr. Kizer personally evaluated the performance of each unit. Doing so was necessary given the corporate office's new role - to allocate (and reallocate) resources, on the basis of performance.

This new spirit of accountability translated, in a very tangible way, to VISN directors who now had contracts (read "financial incentives") that provided (or withheld) meaningful bonuses. These new reward systems clearly identified what each VISN should strive to achieve, and by implication what was less or even unimportant. Again, incentives motivated VISN directors to rethink their local strategies. Decentralization, joined with consequences for VISN directors, resulted in another important change at the VHA. VISN directors were given substantially greater freedom to determine the appropriate clinical and financial outcome measures for their staff, but these directors did so now knowing the criteria for their own performance evaluations. Thus, Washington quit the uphill battle of micromanaging performance in an enormously complex system.

It is also important to note that the rewards were entirely consistent with both the culture and innate characters of health professionals. They were premised on the observation that health professionals and hospital leaders have a passion to provide the best healthcare for patients and are inherently competitive. Thus,

rewards were not exclusively limited to financial incentives. "Bragging rights" became a powerful reward, particularly when outcomes were made known to peers.

Of course, resource allocation decisions - including reward distributions - can be made effectively only when there are reliable and valid data upon which to base decisions. Consequently, the VHA invested heavily in a Computerized Patient Record System. Fortunately, Dr. Kizer well understood the concept of return on investment (ROI) - a critical concept when allocating resources, but one which is naturally difficult to rely on in a politicized arena such as healthcare, where politicians may see the return from their investments only after they have been voted out of office.

In only three years, all VISNs were on board with a single electronic medical record (EMR). The EMR system was so effective that it had commercial applications - but only after partnering with a private sector firm that had IT billing competencies. Today, that information system, through this publicprivate partnership, provides a good source of income to the VHA. And because it now has an external market orientation, the VHA is forced to ensure that its system remains world-class.

It is important at this point to remember that the changes to the structure, performance measurement and rewards depended on the enhanced competencies of VHA staff; it is folly to expect high-powered reward systems, without capable people, to lead to exceptional performance. Or, to paraphrase former Harley-Davidson Motorcycle CEO Richard Teerlink, as his firm signed on to the "empowerment movement" of the 1990s: "When you empower stupid people, all you get are bad decisions, but faster."

Although the staff at the VHA were not stupid, most had never had so much required of them before, and Dr. Kizer took Teerlink's quip to heart. Thus, while altering decision-making authority, performance measurement and reward systems, Dr. Kizer also invested massively in time and money to ensure the system was well populated with the right people. This amounted to taking one or both of two options. He could either change people (i.e., replace) and/or change people (enhance their capabilities and the motivations). He did both.

Dr. Kizer's next actions mirrored those of an earlier Washington resident, President Theodore Roosevelt. Early in his presidency, Roosevelt commented: "The best executive is the one who has sense enough to pick good men to do what he wants done, and self-restraint enough to keep from meddling with them while they do it." This is precisely what Dr. Kizer did. Among the many early changes to the VHA was the appointment of 22 new VISN directors. During his first six months, Dr. Kizer spent two hours interviewing each of 200 candidates, to fill 22 positions (with the hindsight of eight years, 18 of these 22 worked out well). That's 400 hours of interviews in his first six months. Dr. Kizer seemed to give the choice and develop-

ment of his chief lieutenants the same importance as did Jack Welch, the former CEO of General Electric. Welch was fond of saying that "My job is not to go to Louisville to pick out loose handles or compressors for refrigerators. My job is people, resources and ideas." Welch was proud of his record of spending 70% of his time in his final few years at GE developing and evaluating his staff.

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The logic behind Dr. Kizer's investment in leadership was simple: he realized that he would never be able to comprehensively monitor all activities and outcomes in all 22 VISNs. Even if it were possible, it would be better not to have to do so. Rather, the goal was to have 22 eminently capable directors in place who both understood and embraced Dr. Kizer's vision of the new VHA. That was the point of these interviews with 200 candidates - to gauge this understanding and commitment, and then get out of the way.

Once the VISN directors were in place, with their newfound decision-making authority and the incentives to get things right, they began reallocating human resources at a more microlevel. For instance, they began implementing performance measurement systems with rewards linked to performance. The directors, who were responsible for budgets in their VISNs, also began rebalancing from specialists to primary-care physicians. (For those readers concerned that this rebalancing was done at the expense of patient care in order to meet budget, it should also be noted that financial rewards could not be achieved without first meeting the increasing clinical and access measures of performance.)

Some of these activities represent the "replace" version of changing the people. Representing the "develop" version of changing the people, Dr. Kizer invested significantly in training and education simultaneously - again revealing his understanding of ROI.

What was the effect of these system changes? First, let's remember that the VHA was and remains a massive, publicly funded and publicly managed organization. And yet the outcomes were remarkable. From 1994 to 1999 the VHA engaged in incredibly innovative numerous experiments, whose successes (and failures) were shared both within the VHA and throughout the health services world. The corporate centre of the VHA became both the repository and disseminator of new knowledge. More tangible results, and the point at which the Canadian and VHA experiences part company for the time being, are (between 1994 and 1999)

- a cost reduction of 25% (constant dollars), while providing higher quality care and more of it.
- the closure of 55% of acute care beds.
- · a 12% reduction of staff, although 700,000 (24%) more patients received care.
- a 36% reduction in inpatient admissions.
- an increase from 35% to 75% in ambulatory surgeries as a percentage of surgeries.
- a 68% reduction in bed days.
- · a substantial increase in patient satisfaction, surpassing the average ratings nationally in all industries and private hospitals.

#### CANADIAN RADIATION ONCOLOGY SERVICES (CROS)

Now let us switch to a local experiment that also illustrates the utility of Systems Theory for health leaders. In 1999, the cancer system in Ontario was in crisis. Wait lists were growing, and only when the waits were considered dangerously long were cancer sufferers offered the opportunity to receive care in the United States. Toronto alone needed to expand its capacity to treat 1,000 more patients. At the provincial level, Ontario was spending \$30 million in out-of-country radiological treatment for cancer patients. At the time, it was widely believed that the scarcest resources – the source of these increasing queues – were the professionals necessary to provide radiation therapy (e.g., radiation oncologists, radiation therapists, physicists, electronic technicians).

Naturally, there were calls to increase training programs, but this was going to be a long-term solution at best. Also, this was essentially another call to spend more rather than better use current resources. In order to reduce wait lists, Dr. Ken Shumak, then head of Cancer Care Ontario (CCO), first sought the assistance of the Toronto Sunnybrook and Princess Margaret Hospital Cancer Centres. However, they reported that staff members were already stretched to the limit. As a last resort, CCO began an open-bid process that resulted in a controversial contract between Cancer Care Ontario and investor-owned CROS.

CCO designed crystal-clear expectations (read "accountability") into its contract with CROS. CROS was required to: (1) meet medical standards of care, (2) treat 1,000 patients per year and (3) do so without poaching staff from existing clinics.

In exchange, CROS would be paid a flat fee, exactly equal to what OHIP was then paying for care in the public system in Ontario, and lease the facilities at the Toronto Sunnybrook Cancer Centre, CROS would succeed if it could keep its costs below the OHIP per-case allocation - so long as it met its three commitments to CCO, one of which included quality care.

Thus CROS was born, founded by Dr. Tom McGowan, a radiation oncologist with an MBA. Dr. McGowan would rent facilities at the Toronto Sunnybrook Cancer Centre during evenings and weekends, when this space and expensive equipment sat idle (as did many potential radiation therapy patients).

What occurred next was fascinating. CROS was initially successful hiring radiation therapists, but only one physician was willing to "cross the line" - Dr. McGowan himself. This venture, one must understand, was not entirely welcomed by all in the medical community. In fact, Dr. McGowan was vilified, portrayed as "profiting from the suffering of others." On the other hand, patients who no longer had to travel to the U.S. for care had a much more positive view.

What was there to be impressed by?

First, it is important to remember that CROS had a dual mandate: to be operationally efficient and high-quality. To meet this challenge, it might have merely replicated what was being done elsewhere, but simply stay open longer. However, Dr. McGowan chose another route. He began with a blank slate, as opposed to being constrained by existing routines. The Institute for Healthcare Improvement refers to these experiments as "idealized design." Dr. McGowan, in the spirit of idealized design, asked the question: "What would the process of care look like if we designed it from scratch, rather than attempting to jerry-rig the existing system?" In other words: "How should we structure ourselves?"

CROS employed fundamental methodologies and lessons from the field of operations management to analyze existing processes, and learned that a tremendous amount of time was wasted in numerous handoffs in the treatment process. In response to these observations, responsibility for clinic logistics was put in the hands of a clinic support person, rather than a physician. High-value, high-cost physicians would be involved only in care activities that less expensive caregivers were not competent to provide. Thus, decision rights were reallocated.

Next, CROS took a page out of the playbook of Southwest Airlines, the most successful airline on the planet. Southwest Airlines, in an attempt to avoid staff preconceptions of how an airline should work (and most, performance data show, don't), refuses to hire staff who have worked at other airlines. The airline also spends a considerable amount of time during the recruiting process attempting to uncover the values of potential employees. While that was not strictly possible at CROS, CROS sought to hire staff who wholeheartedly rejected traditional ways of organizing radiation therapy. CROS needed staff who had a different mindset about how to organize.

This new ideology was reflected in the kinds of questions asked - for instance: "What do therapists and physicians need to do to ensure that the patient's treatment is provided as efficiently as possible, while also respecting the patient?" Or: "If it typically takes two visits to prepare for treatments, what do we need to do to cut this to one visit for consultation and simulation?" Answers to these questions, by those who were intimately familiar with and frustrated by traditional care processes, were revealed in CROS's new design.

In short order, CROS recruited professionals (65 ultimately, including 9 physicians), many of whom were previously underutilized. For example, some staff, due to family obligations, were only willing or able to work irregular hours. Some radiation therapists, who were thought to be in short supply, gave up moonlighting at the Air Canada Centre or the Royal Alexandra Theatre. (It should be noted that neither entertainment venue offered radiation therapy; some of these trained and "scarce" health professionals worked as theatre ushers in the evening because radiation clinics were not open when they were available to work.)

These were a different kind of professional. Some simply valued the flexibility, and some the financial rewards. But all were chosen by Dr. McGowan, just as Dr. Kizer selected the directors at the VHA, because they were open-minded about what was possible.

CROS paid its staff exceptionally well (1.8 times the going rate) based on expected efficiencies, but all CROS staff members knew these salary premiums would not be possible unless they were remarkably productive. Why is this important and instructive? This experiment was not interesting because it showed that changing pay changes behaviour. That's well known. Rather, it suggests that the system of radiation care had substantial, unnecessary work and processes in the system that could be taken out.3

As in the case of the VHA, the outcomes were remarkable. In the first six months, CROS treated 503 patients at a cost to the Ministry of Health of \$1.8 million. Had these patients been referred to the U.S. for treatment, the Ministry would have paid \$9.3 million. The savings were enough in six months to purchase three new radiation therapy machines. One hundred percent of patients reported care to be perfect. Ninety-four percent said they would recommend CROS to friends if need be. The simulator, a key process in radiation therapy, was 50% more efficient. Radiation therapists were 75% more efficient. Physicians were approximately 200% more efficient.

In 2003 CROS's contract came up for renewal, but was not renewed. Was CROS a success? It depends on who you ask. Certainly CROS was a success by traditional clinical and financial performance measures. Also, patients no longer needed to travel to the U.S. and be away from their families, the province saved money, and the Toronto Sunnybrook Cancer Centre began treating patients in the evenings and weekends. On the other hand, CROS's critics suggest that its case-mix was less challenging and costly in comparison to other cancer centres (CROS disputed this with an independent forensic audit). In

addition, critics maintain that CROS's employment practices raised the absentee rate of healthcare provider as they chose to spend their time working at CROS, sometimes instead of in their full-time positions. CROS's response, naturally, is that these healthcare professionals were voting with their feet, that is, revealing the preferred employer.

Thus, the jury is out as we judge the success of CROS, and we will likely never have full agreement as to its success. However, we do know that both the pre-CROS environment of great dissatisfaction with radiation therapy, and the subsequent formation of CROS prompted by incentives (to provide needed care and to make a profit), created the kind of tension that is necessary for system innovation.

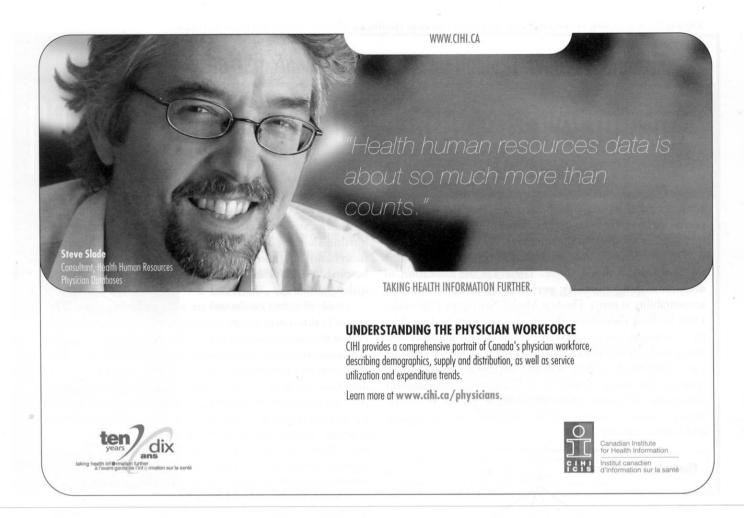
#### MISALIGNMENT, REALIGNMENT AND THE STAR MODEL

The VHA and CROS cases provide a way of thinking about system alignment. The term "alignment" has increasingly entered the parlance of health system discussions, yet it is rarely discussed with precision and in a way that helps health leaders redesign systems. Systems Theory suggests that misalignment exists when organizational strategy, structure, human resources, incentives, and information and decision-support systems are incompatible with each other, rather than mutually reinforcing. This is addressed more fully in this section as we identify two common causes of misalignment - what we refer to as principalagent and knowledge management problems – and then present a way to realign healthcare organizations based on systems

Principal-Agent Problems: Professor Michael Jensen, Professor Emeritus of the Harvard Business School, developed a set of important arguments to address common problems that bedevil all complex organizations, including those in the health sector (Jenson 1998). As he noted, the rise of the modern corporation (healthcare or industrial) with all its attendant glory, brought with it a unique problem. For the first time, owners no longer dominated their own companies. Instead ownership became fragmented among many shareholders, and professional managers were hired to run firms. In an investor-owned firm, shareholders (who are the principals) hire employees (who become their agents) with the hope that the employees will seek to maximize the value of the enterprise and ultimately, the wealth of themselves as principals.

In the health sector, for example, government may be seen as the principals, and healthcare providers (e.g., physicians, nurses or at a higher level, clinic or hospital administrators) may be viewed as agents. The principal-agent problem does not exist in the small physician practice as long the physician is the sole employee; he is both the owner (principal) and the employee

<sup>3.</sup> This notion that unnecessary work is found in all industries has recently been popularized in the well-received book GE Work Out (Ulrich, Kerr & Ashkenas, 2002), based on the innovative work of General Electric in the 1990s.



(agent). However, the principal-agent problem begins to emerge in even the smallest medical practice when this physicianpractice owner begins to take on other employees, such as a nurse and administrative assistant. The problem according to agency theory is that staff (i.e., agents) operate much of the organization and are inclined to make choices that further their own agenda but not necessarily that of the organization as a whole. This does not imply self-serving behaviour, although it might (e.g., the nurse and administrative assistant agreeing to extend each patient visit so that they are able to reduce the pace of work). In other settings, the principal-agent problem might be seen in clinicians who believe that they are best able to provide the right care for their patients, even when objective data do not support this, and thus are unwilling to relinquish control. Or it might be seen in hospital administrators who run deficits in the spirit of providing the best care possible to their communities. In all cases, the agents are making decisions which are not consistent with the interests of the principals.

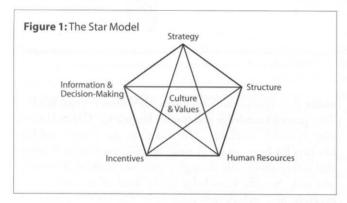
Knowledge Management Problems: The alignment of interests of agents with principals is made more difficult by the linked problem of knowledge management, and in particular the existence of specific knowledge. This is true for all organizations, but particularly in professionalized healthcare organizations. As agents throughout the organization make choices as to how to utilize the organization's resources, they draw on two kinds of data: general knowledge and specific knowledge. General knowledge is widely available - for example, the benefits of beta blockers for heart-attack victims. Specific knowledge is insight that comes about only through experience working in a particular task. Specific knowledge in the head of an internist, for example, may include how patients tend to react to a particular course of treatment. Such knowledge is critical to the internist as she makes choices on behalf of the patient and the hospital. It represents part of her own learning curve in becoming more effective and hence represents an asset in her own personal stock of value.

It is difficult for principals, who have limited access to the specific knowledge in the hands of individual agents, to create incentives for individual agents to utilize that specific knowledge optimally in making choices to further the organization's interests. Thus, when Intermountain Healthcare in the U.S. implemented a system of rewards for physicians who followed clinical protocols - when medically appropriate - management initially had difficulty discerning what was and was not appropriate. In this case, it was not in the interest of physicians to share their specific knowledge so that management could more effectively monitor them.

The irony of specific knowledge is that, on one hand, its

existence complicates the already challenging principal-agent problem and hence is a negative. But on the other hand, worldclass organizations by definition possess specific knowledge. Otherwise, they would not be uniquely valuable. Hence the issue is not how to get rid of specific knowledge, but rather how to ensure that the presence of specific knowledge does not allow agents (e.g., individual caregivers, hospital leaders) to pursue their own agendas at the expense of the larger organization (e.g., the hospital or the ministry).

The Star Model: Three tools need to be used to overcome the problems outlined above. These are the allocation of decision-making authority, performance measurement and accountability systems. The Star Model (See Figure 1) provides a way to think about using these tools in concert, and provides an "evidenced-based management" model to guide system design and redesign (Galbraith 2001; Lawler 1996). It provides a way to think about how systems, whether a national health system or the system of care in an ICU, comprise interdependent subsystems. We refer to these subsystems as "points" of the star (strategy, structure, human resources, incentives and information and decision support).



There are six important ideas implicit in the Star Model. The first, based on substantial evidence, is that the root cause of organizational performance problems is rarely "dumb, stupid, incompetent, and lazy employees." We feel it is necessary to state this from the onset since, in our experience, many managerial actions to remedy organizational performance problems seem to suggest that employees (or their unions) are the cause of performance shortfalls. Not only is the "people problem" rarely the root cause of performance shortfalls, but this is especially not the case in healthcare organizations where most employees and professionals are committed to providing the best care possible (or at least they entered the healthcare sector with this as a goal). Thus, when they appear not to be committed, it is critical to examine why. Typically it is due to a poorly designed health organization or system.

Second is the proposition that there is no one best way to design a system. Thus, we should avoid asking questions such

as: "What is the right structure for a system?" or "What is the right human resources mix?" The answer to these questions is always the same: "It depends." What it depends on, specifically, are (1) external factors (i.e., those out of the hands of shortterm control of managers/policymakers, such as inadequate information systems with which to make resource allocation decisions) and (2) previous subsystem design decisions relating to strategy, structure, etc.. For example, the well-documented nursing shortage in Canada (part of the human resources subsystem) determines how we must structure care teams in hospitals (e.g., to whom in the team we can allocate decisionmaking authority).

Third, all points on the star are not equally important. The goal of health system designers should not be to design the most elegant human resources or incentive systems, if that means an organization strategy (and associated goals) that do not meet the needs of a community. Rather, strategy must be seen as dominant, with the other subsystems designed, to the extent possible, to support the implementation of strategy. Of course, it is also recognized that some strategies have a lower probability of being implemented due to the state of other current subsystems. Thus, the strategy formulation process must take into account not only the demands of the community, but also the current and future subsystems required to support strategic goals.

A fourth key feature in the Star Model is its dynamism, and specifically, the notion that changes to any of the points on the star may create the need to alter other systems (e.g., incentive systems) in order to regain alignment. For example, the structural change from program-based to disease management may create the need to alter information and decision-support systems so that performance can be validly evaluated and rewarded (i.e., so that clinical leaders and administrators can be held accountable). And enhanced information and decision-support systems may require better skilled staff (i.e., a change in human resources) who can manipulate and use newly available data.

A fifth idea embedded in the Star Model is that there are no levers available to healthcare leaders or policymakers that, when pulled, directly affect a system's culture and values. Rather, a system's culture and values can only be changed indirectly, and only through the decisions we make about the points on the star. For example, a report by the Institute for Healthcare Improvement documented the case of one Texas hospital that had developed successful innovations in pneumonia care, but its physician leaders were unwilling to share its methods because it provided a "local competitive advantage" (Berwick, 2003). Surely, the culture of this organization and its core values were influenced, negatively in our view, by a reward system that we can only imagine was primarily financially based. In this case, a for-profit culture overwhelmed the medical profession's culture of caregiving. As a more local example, the recently passed legislation in Ontario (commonly referred to as Bill 8) and

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Accountability Agreements (yet to be negotiated) are intended to change the incentives, decision right, and information and decision support in the province. Although less explicit, they are also intended to change the culture of healthcare in the province to a culture of collaboration, performance and integration.

Sixth, and related, is the more subtle message that culture and values can create inertial forces, impeding the kinds of subsystem changes required for macro-system transformation. Thus, when we hear such statements such as "We can't do that ... " (e.g., pay for performance; dismiss low-performing staff; allow forprofit hospitals), there is a very real chance that what is really being said is "We don't want to do that" or "That's not the way we do things here." Such statements reveal core ideology and culture.

#### THE STARS WERE ALIGNED: THE VHA AND CROS

Let's remember that changes at the VHA began with a vision to provide more effective, integrated care at lower cost. This was the VHA's new strategic goal. To realize this goal, Dr. Kizer had to recognize that, sitting in Washington, he was at a distinct information disadvantage; each of his 22 newly appointed (or newly renewed) VISN directors understood better than he the "communities" for which they were responsible and the resources available. He addressed this information disadvan-

tage with an important structural change - the apportionment of substantially greater decision-making authority to these directors. However, this structural change would never have been effective without the development of a more complete information and decision-support system. Specifically, Dr. Kizer supported the creation of enhanced performance measurement, or monitoring, capabilities to ensure that the VISN directors' new found autonomy was not used to further local (i.e., VISN or personal) interests at the expense of the VHA system. In addition, the new information systems offered a solution to a risk often associated with decentralized decision-making, namely, the lack of integrated decision-making.

With enhanced information and decision-support systems, VISN directors and those under them had a greater ability to learn about successes (and failures) throughout the system. And they now had an incentive to do so. Dr. Kizer's newly developed performance measurement system fed directly into his decisions about how VISN directors would be rewarded. Likewise, VISN directors used the performance measurement systems to assess and reward (or punish) their subordinates. And, having begun the creation of this *culture* of accountability, everyone from Dr. Kizer down to program directors had an incentive to invest in human resources (e.g., replacing less effective staff with more effective staff and/or enhancing the talents of current staff).

Further, doing so was required as decision-making authority was pushed down the system. Again, all of these interdependent subsystem redesigns were set in motion by a new strategic goal, and this goal of providing more effective, integrated care was prompted by a new set of incentives, that is: "Become more effective or be prepared to lose your funding and your monopoly position to private sector providers."

At CROS we also see illustrations of the Star Model and changes to decision-making authority, performance measurement, and accountability systems. There, Dr. McGowan pushed decision rights down to practitioners who knew the most about patient care and current practice patterns. These practitioners had specific knowledge that gave them a nuanced understanding of how care could be organized, and thus the structure of reporting relationships at the newly formed CROS was designed accordingly. As work tasks were newly designed, in stark contrast to conventional practices, so too were performance measurement (i.e., information and decision support) and reward/consequence systems (i.e., incentives). And, as in the case of the VHA, these structural changes and changes in performance expectations changed the kinds of people who were eager and able to work with a new set of professional relationships (i.e., human resources). That is, the high-powered incentive system attracted those who wanted to perform at high levels and earn great rewards.

Like the VHA, CROS managed to solve the principal-agent and knowledge management problems that bedevil healthcare organization. Although an oversimplification, we see that CROS put decision-making authority (as the organization was initially designed, and then while operating) into the hands of those closest to the patient, continuously measured performance, and fed it back to staff so they could adjust their behaviours. Staff had a real incentive to do so since their incentives were based on their performance, and their performance was aligned with CROS's performance. Thus, in reaching their personal and professional goals, staff (including Dr. McGowan) were also helping CROS reach its organizational goals as articulated in its agreement with CCO. Finally, the consequence of these innovative system design features was the creation of a culture that simultaneously put the patient first, and made all staff feel accountable for both fiscal and clinical outcomes.

#### Conclusion

While healthcare organizations are arguably the most complex of any, and resources will never be sufficient to meet the insatiable demand for care, healthcare leaders have an advantage over leaders in many other industries. For the most part, healthcare professionals are motivated by a "calling"; they are socialized to care and put patients first. However, the goodwill afforded the system by these caring professionals has eroded as good people are asked to do heroic things in organizations and systems that often are misaligned, and therefore not supportive.

We have suggested that all healthcare organizations are prone to principal-agent and knowledge management problems, and that preventing (or remedying) these depends on a cycle of (1) allocating decision-making authority to those closest to patients, (2) performance measurement and (3) rewards (or punishments) based on performance. However, in order to ensure that both our health professionals, and thus their patients, are able to emerge successfully from this performance management cycle, healthcare leaders must first ensure that care is provided in better aligned systems. The Star Model provides a practical, evidencebased approach to organizational system design, from a national or provincial level, down to the design of a medical practice. This perspective thus casts the role of health system leaders in a new light. They ought to be seen as system architects who should not look to the best structures, the best incentive systems, etc. to solve system shortcomings. Rather, effective system architects will recognize that these building blocks, or "points on the star," are effective only to the extent that they are mutually reinforcing. Only then will we have added precision to the otherwise vague notion of health system alignment.

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#### References

Berwick, D.M. 2004. Escape Fire: Designs for the Future of Healthcare. San Francisco: Jossey-Bass Publishing.

Galbraith, J.R. 2001. Designing Organizations: An Executive Guide to Strategy, Structure, and Process. San Francisco: Jossey-Bass Publishing.

Lawler, E.E. 1996. From the Ground Up: Six Principles for Building the New Logic Corporation. San Francisco: Jossey-Bass Publishing.

Jenson, M.C. 1998. Foundations of Organizational Strategy. Cambridge: Harvard University Press.

McGowan, T. 2003. "Private Management of a Public Service: What Can Be Learned from the CROS Experience?" Hospital Quarterly 6:

Ulrich, D., S. Kerr and R. Ashkenas. 2002. GE Work-Out. New York: McGraw-Hill.