



INCENTIVES FOR TRANSFORMATION: e-Health as a Strategic Health System Priority

January 2008



Executive Summary

True health system transformation depends upon improving the flow of both patients and their health information through the health care system, thereby facilitating better integration and delivery of patient care. This is the promise of e-Health.

e-Health is practical application of information and communications technologies used to facilitate work flow redesign while also delivering value in the form of improved accessibility, quality of clinical outcomes and efficiency across health care. e-Health can enable the break down of silos, redesign old processes and transform the Ontario health system. To realize this potential, however, e-Health must be made a strategic health system priority by the Government of Ontario; it must be viewed as a powerful clinical investment, rather than an administrative expense.

While health care providers in Ontario and the MOHLTC have made significant strides in developing innovative e-Health solutions, the current funding environment does not effectively support the adoption, collaboration and integration necessary to enable the timely realization of e-Health's true value. Significant and timely progress in e-Health requires proactive investments and alignment-inducing incentives to encourage adoption at the local, regional and provincial levels. The current lack of such approaches poses significant risk to health system transformation, limiting Ontario's ability to make rapid advancements in health care accessibility, chronic disease management and physician recruitment and retention, as well as many other priorities affecting patients.

This policy paper articulates the need for dedicated new strategic investments in e-Health and makes practical policy recommendations for those investments to accelerate adoption across all providers and encourage system alignment. The policy solutions presented strive to balance the desired harmonization and alignment of e-Health initiatives toward system integration with local innovation and flexibility to ensure results are patient-focused.

Make Dedicated Strategic Investments in e-Health

Dedicated strategic investments in e-Health call for a balanced approach that give full consideration to both expected benefits and the dedicated investment required to harvest these benefits. The OHA firmly believes that e-Health is a wise and necessary investment with extensive value for patients, providers and the system's stewards. Improved availability, integration and communication of health care information will result in improved care for those with chronic diseases, greater efficiency in interactions with patients, improved patient safety, improved patient participation in their own health care, and many other positive outcomes. To effectively realize the benefits of e-Health, strategic investment is required to ensure that the necessary funding is both available and dedicated appropriately.

POLICY SOLUTION 1:

Provide dedicated, multi-year, net new e-Health operating funding

The OHA strongly endorses developing a sustainable multi-year funding strategy that provides net new investment for both local and provincial e-Health initiatives that reward and support adoption, collaboration and integration among providers. e-Health success requires sustainable operating funding for local initiatives that align with and contribute to the realization of both LHIN e-Health plans and a provincial e-Health vision.

POLICY SOLUTION 2:

Leverage new sources of capital for e-Health

If e-Health is to be a strategic investment priority, the significant up-front capital requirements must be acknowledged. The OHA supports the development of a dedicated provincial e-Health Infrastructure Fund that provides a source of capital funding for e-Health initiatives.

Create Effective Incentive Mechanisms for e-Health Alignment

Making e-Health a strategic health system priority requires incentive mechanisms that acknowledge e-Health's significance and align all system partners around a shared vision. Alignment around a shared vision must happen both within the MOHLTC and between the LHINs, hospitals and other health system providers. Mechanisms to promote alignment are crucial not only to ensure the vision of a true health system is achieved, but also to ensure that progress is made through provincial projects and through the energy and drive of empowered local providers as well.

The following five policy solutions for the alignment of e-Health have been designed to support and sustain a collaborative approach that recognizes and leverages local, regional and provincial e-Health successes, while also minimizing the redundancy and duplication inherent in the current system.

POLICY SOLUTION 3:

Hospitals welcome accountability to meet priorities and standards

Hospitals welcome opportunities to demonstrate accountability with business objectives and to adhere to provincial standards in exchange for incentives that will accelerate e-Health adoption both provincially and locally. At the same time, as LHINs and providers agree to follow consistent lines of accountability as they proceed with e-Health adoption and integration, the MOHLTC, as well as other agencies and ministries, must avoid internal misalignments of multiple priorities that discourage provider participation.

POLICY SOLUTION 4:

Support local mechanisms for alignment and execution of integrated e-Health initiatives

Fostering collaboration and integration within LHIN regions needs to be an important objective of dedicated net new funding. The OHA recommends the provision of dedicated investments to encourage and support the

alignment and execution of collaborative e-Health initiatives and to link providers while also preserving flexible approaches that meet regional needs and objectives.

POLICY SOLUTION 5:

Provide incentives to encourage sharing

Sharing expertise, skills and advanced technology is fundamental to e-Health alignment and continued progress. At the same time, to achieve this simply by relying on the over tapped goodwill of leading providers is not sustainable. The OHA recommends that a portion of the proposed net new MOHLTC investment be used to create incentives for providers to share their resources and expertise.

POLICY SOLUTION 6:

Develop Accountability Agreements that treat e-Health as a strategic investment priority

If the transformation of health care in Ontario is to succeed, e-Health must be made a strategic clinical investment priority (rather than an administrative expense) and must be managed accordingly. The redesign of Hospital Accountability Agreements (HAAs) into Service Accountability Agreements (SAAs) and the introduction of Ministry-LHIN Accountability Agreements (MLAAs) provide an opportunity to create an effective alignment tool that ensures MOHLTC funding supports and encourages LHIN and provider adoption and collaboration on e-Health initiatives.

POLICY SOLUTION 7:

Create a dedicated e-Health Innovation Fund

The OHA recommends the development of a provincial e-Health Innovation Fund to provide grants for creative local e-Health research and development initiatives with LHIN or pan-LHIN applications, using a transparent evaluation process and a mandate to leverage successes more widely. The fund could serve as an economic development tool helping to drive private sector investment and job creation in Ontario e-Health industries.

Introduction

Realization of true health system transformation depends upon improving the flow of both patients and their health information through the health care system, thereby facilitating better integration and delivery of patient care. This is the promise of e-Health.

e-Health is the practical application of information and communications technologies used to facilitate work flow redesign and to deliver value in the form of improved accessibility, quality of clinical outcomes and efficiency across health care. e-Health can enable the break down silos, redesign old processes and transform the Ontario health system. To realize this potential, however, e-Health must be made a strategic health system priority by the Ontario government; it must be viewed as a powerful clinical investment, rather than an administrative expense.

Many of the existing e-Health successes in Ontario have been built on a foundation of local hospital and health service provider innovation and commitment. Local providers with an intimate knowledge of patient care demands and opportunities have championed local solutions, approaches and priorities aimed at directly improving the patient care experience within their organizations. Indeed much of the e-Health successes to date have evolved in response to distinct local needs that have been proactively addressed and financed by regional providers. While this approach has been effective at responding to local needs, it has created a system that fosters redundancy, creates regional imbalances, impedes true system integration, and does not fully capitalize on the potential for e-health to positively impact the efficiency and effectiveness of patient care across the continuum.

As the adoption and utilization of e-Health solutions to improve local patient care take hold, telemedicine solutions, innovative patient and provider portals, Electronic Medical Records (EMR) and other local innovations have begun to reshape the delivery of care across the province. Yet, with the growing level of e-Health adoption, the potential to integrate and leverage the successes of previously isolated provider initiatives becomes increasingly more important.

The evolution of e-Health in Ontario has been hindered by the absence of a health system funding approach that recognizes e-Health as a strategic investment priority.

The efficient application of e-Health solutions is predicated on the sharing of patient information, as well as e-Health successes and lessons, across the health care system. With the advent of the Local Health Integration Networks (LHINs), the Ministry of Health and Long-Term Care (MOHLTC) has introduced a mechanism for fostering this communication, integration and alignment of health care activities across local provider organizations. This new approach to health care delivery, however, requires fresh, new thinking of the ways e-Health solutions are funded, developed and applied so that maximum return on e-Health investment is achieved locally, regionally and across the province.

Historically, the evolution of e-Health in Ontario has been hindered by the absence of a health system funding approach that recognizes e-Health as a strategic investment priority. The successful implementation of e-Health solutions is dependent upon dedicated funding and aligned funding mechanisms that can achieve an integrated health system and the full benefit of e-Health enabled care. Aligned funding mechanisms pragmatically direct funding towards e-Health investment choices and encourage the alignment of individual provider, regional (LHIN) and provincial goals and initiatives and the sharing of expertise and resources to maximize public benefit.



To this end, the Ontario Hospital Association (OHA) guided by a working group of hospital and regional health representatives from across the province, set out to encourage the adoption of e-Health as a strategic investment priority for Ontario. Going beyond advocating for an important goal, the group sought to provide ideas to ensure that the right incentives are in place, and barriers removed, to achieve and sustain the promise of e-Health enabled health care.

This policy paper presents clear tangible recommendations for investment and incentive mechanisms that are aligned with the successful implementation of a renewed Ontario e-Health Strategy, at both the provider and regional (LHIN) levels, by fostering strategic investments, collaboration and the sharing of e-Health resources and expertise across the continuum of care.

The Value of e-Health

e-Health is a complex concept with a number of possible definitions and interpretations. The OHA recognizes this lack of clarity and understands the need to draw parameters around the possible scope of initiatives in order to create policy recommendations that can practically impact e-Health adoption and utilization across the continuum of care.

e-Health is about improving patient care and outcomes through practical application of enabling information and communication technologies and through reengineering old processes. To be truly successful, however, e-Health must maintain an unwavering focus on desired patient care outcomes and must incorporate technology solutions

to achieve that end. e-Health solutions must foster better decision-making through timely access to information, eliminating redundancies and integrating providers via effective mechanisms that allow stakeholders to share health information, and, thus, improve both the effectiveness and efficiency of patient care.

Given the complexity of e-Health’s definition, it is not surprising that identifying a common value proposition for e-Health is complex and difficult. Indeed, the value of e-Health may vary significantly depending on individual perspectives. Multiple stakeholders necessitate multiple value propositions that speak to the unique value of e-Health for each group:

STAKEHOLDER GROUP	E-HEALTH VALUE PROPOSITION
Clients and Patients	e-Health solutions provide improved access to and coordination of care and reduced risk of medical errors. Through greater access to information, e-Health empowers patients and clients by enabling active involvement in care.
Hospitals and Health Care Providers Community Care Providers	<p>e-Health solutions provide improved quality of clinical decision-making, greater patient safety, more effective management of patients and clients with chronic diseases, appropriate access to care, and reductions in redundant testing.</p> <p>Especially when preceded by enabled process redesign, e-Health solutions can provide savings through efficiencies.</p> <p>e-Health solutions also enable integration across providers, ensuring the effective transition of patients and clients between providers and maximizing resource utilization.</p>
Physician Offices	e-Health improves practice efficiency through reduced intake and referral administration, improved access to test results and informed clinical decision making.
Stewards (MOHLTC) and Regional Planners and Funders (LHINs)	e-Health supports health system reform as it increases health system efficiency, strengthens health system accountability and fosters true system integration. e-Health reduces the burden on parts of the health system by enabling proactive approaches to challenges like Chronic Disease Management, preventative immunizations and reducing adverse events.

Regardless of how it is viewed and expressed, e-Health offers significant value to the Ontario health care system. To harvest this value, however, e-Health must be made a provincial health care priority and afforded appropriate funding and support.

The lack of a strategic investment approach to e-Health presents significant risks to realizing the provincial health system's transformation agenda.

Risks of Not Moving Forward

The lack of a strategic investment approach to e-Health presents significant risks to realizing the provincial health system's transformation agenda. Indeed, health system transformation and integration is predicated on the enabling abilities of e-Health.

Without a comprehensive, pragmatic approach to e-Health, Ontario faces a number of very real risks, including:

- An inability to fully capitalize on innovative new approaches and redesigned processes in areas like Chronic Disease Management or immunization that improve patient care, keeping people healthier and out of acute care.
- A perpetuation of a silo-based health system that misses the opportunity to move toward automated collection and sharing of critical information, enabling timely, seamless client referral between interconnected providers. This is crucial for services like expediting the process of placing alternative-level-of-care (ALC) patients from hospitals into long-term care homes or patient-centred care for those who are aging at home.

- An inability to meet emerging consumer demands to have access to their own health information and to take advantage of the benefits they can bring to their own care.
- A strategic disadvantage in the competition for physicians, nurses and other skilled professionals as young, technology savvy clinicians opt for modern e-Health enabled clinical environments in other provinces and countries.

Another significant risk is that the benefits of e-Health in enabling patient care and efficiency will not be secure when they are most urgently needed in the near future. According to the Ministry of Finance's *Toward 2025: Assessing Ontario's Long-Term Outlook*, "Health spending is projected to be the fastest-growing component of the provincial budget, rising faster than revenue growth. As a result, health's share of government program spending is projected to increase from 45 per cent in 2004-05 to about 55 per cent in 2024-25, creating pressure for tighter constraints on other areas of public spending." This is, in significant part, attributed to "the population aging trend...as baby boomers begin to turn age 65 starting in 2011," increasing the share of heavy health care consuming seniors from 13 percent in 2005 to almost 20 percent in 2025."¹

An e-Health enabled health care system will be important for serving the senior population for all of the reasons listed above, as well as for the potential efficiency and sustainability benefits e-Health has the potential to deliver. According to the same Ministry of Finance report, "The adoption of information management and communications systems has the potential to create a more efficient supply of health services. Information technology can increase the efficiency of Ontario's health system by revolutionizing the way health information is collected, stored, shared, accessed and used." If e-Health is not made a strategic investment priority for the system, this potential will never be reached or, at best, will proceed too slowly to be there when patients and their health system need it most.

¹ Ontario Ministry of Finance, *Toward 2025: Assessing Ontario's Long-Term Outlook*, Chapter 4, Drivers of Future Health Care Costs.

The e-Health Challenge in Ontario

e-Health has the potential to transform the delivery of health care. In Ontario, however, this potential has yet to be fully tapped.

While there is emerging consensus on the value of e-Health, the adoption of e-Health solutions across the continuum of care in Ontario remains relatively slow and uncoordinated when compared with other provinces. While this protracted approach to e-Health adoption is, at least in part, a function of the size and complexity of the Ontario health care market, there are larger issues at play.

e-Health is Not Yet an Aligned Strategic Investment Priority

First and foremost among the challenges for e-Health is the chronic under funding of local, regional and provincial e-Health initiatives. e-Health has been widely recognized by clinicians, administrators and policy makers as a key enabler of efficient and effective health care delivery, yet there are not nearly enough resources in the system to fully capitalize on current opportunities, let alone enough to foster the development of further e-Health innovation.

e-Health is a long-term investment that confers systemic benefits often difficult to quantify and see. While this statement is generally well supported, it highlights the fundamental challenge of e-Health: in an environment of scarce health care resources, e-Health solutions suffer due to a lack of benefit visibility and immediacy. When faced with funding constraints, decision makers often choose immediate direct patient care activities over supportive, longer term e-Health investments. Making e-Health a strategic investment priority has to start with the development of a comprehensive provincial vision that uses dedicated funding and incentive instruments to encourage all parts of the system to be aligned to the strategic objectives.

Without such an approach, Ontario risks losing the significant progress that has been made through innovative local, regional and provincial e-Health initiatives and will not realize its ambitious health system transformation goals.

The Challenge of Balance and Alignment

The current e-Health landscape in Ontario is a tenuous balance of local provider initiatives and large scale provincial projects minimally coordinated and all competing for financial and human resources. While this competition has been perhaps the inevitable result of Ontario's somewhat fragmented approach to e-Health evolution, it is clear that this is not the most efficient approach for moving forward.

While some advocate for a provincially-driven approach to e-Health solution development and a standardized roll-out of common initiatives that foster interoperability and benefit from economies of scale, others favour a localized approach that some see as more nimble and responsive to local patient care needs. The current e-Health landscape in Ontario is therefore a challenging balance of local provider initiatives and large scale provincial projects all competing for financial and human resources.

At the local level, e-Health initiatives have been primarily driven by hospitals and other local providers, largely funded out of the operational and capital budgets of these organizations and, in some cases, augmented by donations and other private funds. Hospitals, with the largest operating and capital budgets among providers, have tended to make the most progress. Being driven by provider-level investment decisions among hospitals has resulted in a range of adoption, varying from those who are effectively using e-Health throughout their institution to improve delivery of care to others who still function almost entirely in paper and film-based environments.

Driven by local needs and guided by fiscal responsibility, proactive hospitals and other local providers are creating innovative solutions to overcome barriers to sharing patient information, streamlining clinical processes and improving patient care. The development of patient portals, DI/PACS initiatives and local electronic patient records are striking examples of this local provider innovation. A successful strategy for accelerating e-Health adoption in Ontario will employ investment instruments that continue to leverage provider-level innovation and energy. While this local approach to e-Health has bred many successful initiatives that are improving patient care and organizational efficiency in the absence of provincial standards (such as architecture, interfaces, nomenclature, etc.), it has also created interoperability issues and a barrier to further system integration through the independent development of e-Health solutions and the implementation of non-interoperable legacy systems.

Finding the right balance between local, regional and provincial initiatives and resource demands is essential to keeping e-Health moving forward in Ontario.

At the provincial level, some large-scale, pan-provincial initiatives have been implemented or are under development. These initiatives, such as the Wait Time Information System (WTIS), the Drug Profile Viewer (DPV), the Electronic Child Health Record (eCHN), and the Ontario Laboratory Information System (OLIS), have the ability to provide a layer of standardization to health care delivery across Ontario. While there is tremendous value in many of these tools, in a few cases, the implementation has been slow

and cumbersome due to the scope of the initiatives. Further, the implementation of these pan-provincial solutions requires significant resources, especially at a local and regional level. Provincial initiatives are resource intensive both from a financial and human resource perspective and, yet, too often only provide for these within the central project management offices, leaving the most important aspects of deployment and adoption to the “best efforts” of cash-strapped local providers. With Ontario’s currently limited e-Health budget and shortage of skilled health care Information and Communications Technology (ICT) professionals, this resource intensity becomes an even greater factor as these provincial initiatives compete with locally driven solutions for funding and attention.

Finding the right balance between local, regional and provincial initiatives and resource demands is essential to keeping e-Health moving forward in Ontario. This delicate balance is, however, predicated on ensuring a fundamental alignment of the vision for e-Health across the continuum of care. Beginning internally with the MOHLTC, there must be a shared understanding of desired outcomes, expected benefits and the mechanisms necessary to support the realization of these benefits. MOHLTC mechanisms for promoting provider performance and accountability (for example, through the Wait Times Strategy) must align with and balance the stipulations in the Hospital Service Accountability Agreements and, at the same time, with the expectations of those responsible for advancing broader e-Health opportunities (i.e., the e-Health Program).

For e-Health to succeed, the MOHLTC must present an approach to e-Health that recognizes and overcomes the challenges created by the current siloed approach and presents shared vision, standards, expectations and incentives for e-Health to the providers who will ultimately implement the solutions. When these approaches are clearly and consistently presented, hospitals welcome the opportunity to be held accountable for incentives offered if it means their individual and collaborative efforts align with desired system objectives.



The Changing Provincial Context

To provide the structure necessary to advance the cause of e-Health in Ontario pragmatically and efficiently, the OHA and others have called on the MOHLTC to develop a comprehensive e-Health strategy for the province. The MOHLTC shares the recognition of this need and, in consultation with its health system partners, has been developing and defining a renewed vision for e-Health in Ontario. Alignment of funding mechanisms and incentives with achievement of that vision are the goals of the recommendations outlined in this paper.

In addition to developing an e-Health strategy, the MOHLTC is transforming the planning, funding and delivery of health care in Ontario. The essence of the MOHLTC's current transformation is to focus the ministry on its role as a responsible steward of the health care system, and devolve much of the managerial

responsibility to organizations such as the LHINs and local health care providers. Properly implemented, Ontario's renewed e-Health strategy should be designed to help providers, LHINs, and the MOHLTC transform the health care system into a high-quality, safer, and more sustainable system for all Ontarians.

With the adoption of a provincial e-Health strategy and the creation of LHINs, the focus of e-Health in Ontario needs to evolve towards an integrated local-provincial model that leverages the best of both approaches as a means for fostering improved system integration and enhanced patient care. It is into the context of ideologies and legacy systems that this paper makes investment and incentive recommendations, encouraging collaboration and innovation, maintaining local momentum and contributing to the realization of aligned local and provincial visions for e-Health.

e-Health Funding in Ontario

Funding for e-Health in Ontario has historically happened on many levels. The Province has provided funding and centralized support for the development of province-wide initiatives such as the electronic Child Health Network (eCHN), the Emergency Drug Profile Viewer for Ontario Drug Benefit and Trillium recipients (DPV), the Ontario Laboratory Information System (OLIS), the Ontario Telemedicine Network (OTN) and infrastructure supports like those provided by Smart Systems for Health Agency (SSHA).

At the regional level, hospitals, to a large extent, have self-financed and subsidized the development of regional e-Health solutions through strategic allocation of their global budget to information and

communication technology. Between 1999-00 and 2005-06, hospital expenses on information technology increased more than any other administration expense (see below) as hospitals implemented information technology solutions to meet local needs. Even with this increase in expenditure, information technology remains at only 3.2 per cent of total operating expenses, 2.3 per cent excluding amortization. It is also important to note that this percentage reflects all IT expenditures, not just those allocated to e-Health initiatives.

This compares starkly against the financial services industry that dedicates, on average, 6.6 per cent of total operating expenses toward technology to improve the flow of information and improve the client-institution interface.²

TOTAL EXPENSES BY FUNCTIONAL CENTRE

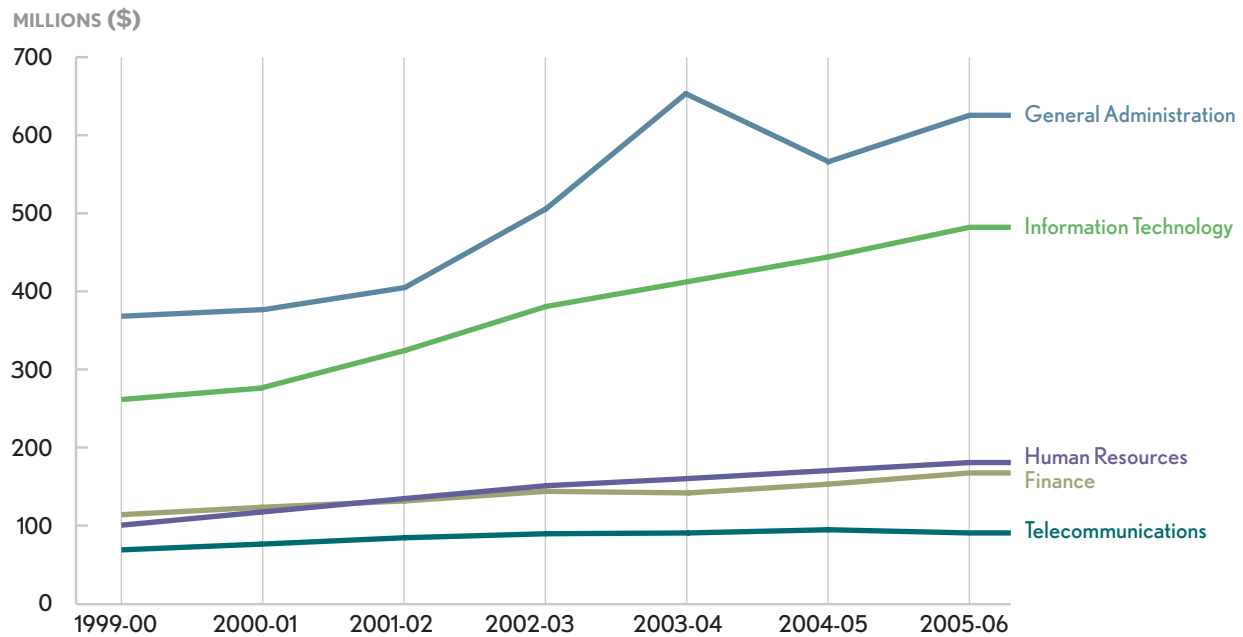


Figure 1: Hospital total expenses by functional centre as reported in the MIS database.

² Gartner Group. 2001. *Strategic Analysis Report: 2001 Information Technology Spending and Staffing Survey Results*.



Canada Health Infoway (CHI) provides an additional source of e-Health funding for MOHLTC supported e-Health initiatives. While, CHI has been instrumental in financing some key regional e-Health initiatives such as the Thames Valley DI/PACS initiative and the Toronto East Network's (TEN) DI project, Ontario has not benefited proportionally from CHI investment in relation to other provinces. This historically low level of CHI support has been precipitated, at least in part, by the difficulty in aligning priorities between Infoway and nine other provinces, which are all at different stages of e-Health development. Given Ontario's size and health sector complexity, the definition of clear e-Health priorities has been even more challenging, resulting in relatively low levels of CHI investment for Ontario initiatives. With CHI having now committed all of its initial \$1.2 billion in capitalization, Ontario must act quickly to take advantage of a share of the additional \$400 million in federal support allocated to CHI at the 2007 Federal Budget.

In its report to CHI, Booz Allan Hamilton estimated the cost of an electronic health record (EHR) and its contributing elements alone to be between \$8B and \$16B over the next 10 years. Given that Ontario accounts approximately 40 per cent of the national public health care expenditures and assuming that e-Health expenditures follow a similar economic pattern, it can be extrapolated that the estimated cost of an EHR and its related e-Health elements to be between \$3.2B and \$6.4B. Based on historic expenditures in Ontario, and when the necessary investments in change management and human resources are in place, the OHA believes the 10-year cost will be on the upper end of this range.

The OHA pragmatically assumes that this funding will be derived from a combination of net new MOHLTC investment, CHI funding and some form of health care provider contributions.

Understanding the Obstacles

To effectively develop and implement an incentive structure that encourages the integration of e-Health practices and solutions into common health care practice, it is essential that the current obstacles be fully examined. The OHA views the following structural, financial and human resources issues as obstacles to be overcome by pragmatic and focused policy decisions.

Inadequate Financial Resources

The development of integrated local and provincial health care systems enabled by e-Health solutions requires significant financial resources. These significant financial resources are needed to adequately fund the development, implementation and optimization of both local and provincial e-Health solutions for fostering integration, information sharing, and, ultimately, improving patient care.

Sustainability of current investment levels and provider commitment will become a fundamental, and perhaps insurmountable, challenge without additional dedicated financial resources.

While much of the resources for the development of e-Health innovation at the local and regional levels have been historically provided by health care providers, either directly through the allocation of constrained operating dollars or through in-kind contributions of human and technical resources, the OHA recognizes that this is not a sustainable model. With the move towards an e-Health enabled health care environment, in which technology plays an increasing

role in the movement of health care information, sustainability of current investment levels and provider commitment will become a fundamental, and perhaps insurmountable, challenge without additional dedicated financial resources. Provider investment in information system maintenance, upgrades and renewal, system redundancy and the human resources necessary to support it will continue to fight a losing battle for financial resources against provider clinical priorities, thereby limiting the tremendous potential of e-Health.

The OHA, therefore, fully supports the call for incremental, dedicated funding for e-Health initiatives across Ontario and encourages the efforts of the MOHLTC to develop a strategy that includes multi-year investment targets. e-Health initiatives are currently critically under-funded and consequently rely on a patchwork of funding mechanisms that act as barriers to local adoption and provincial integration. Realizing e-Health's true value requires the availability of financial resources to fund the up-front capital infrastructure costs (hardware, wires, software) and the very significant adoption co-factors (process re-engineering, project management, training and education) that are essential to a project's success, as well as the ongoing operating and maintenance costs. Further, financial resources are required to fund the temporary system inefficiencies created by the introduction of new clinical and administrative processes and the inherent ongoing support costs for the new system.

In the OHA's 2006 e-Health Readiness Survey, hospitals identified a lack of adequate financial support as the leading barrier to e-Health implementation (see Figure 2).

Initial implementation costs to invest in e-Health infrastructure are especially high and act as a barrier in environments where operating budgets are tight and there are significant working capital deficits.

PROVINCE-WIDE BARRIERS TO IMPLEMENTATION

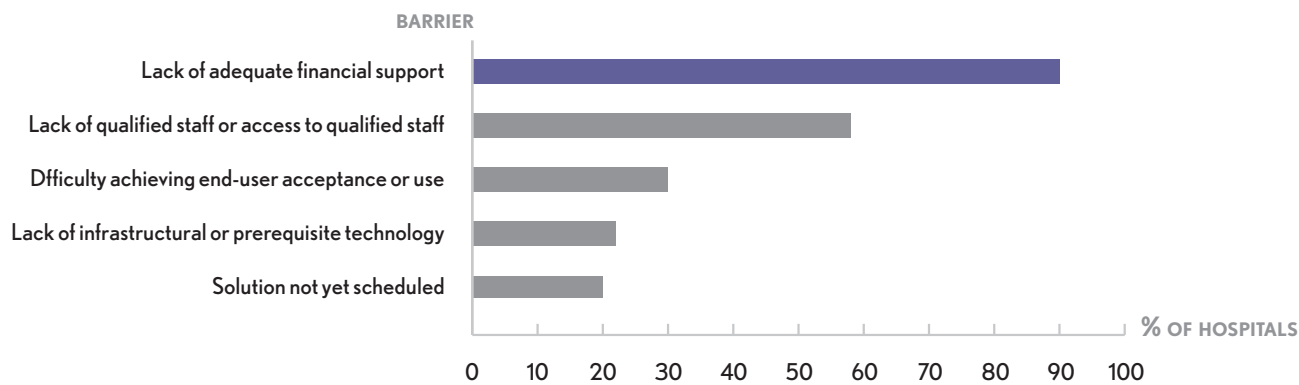


Figure 2: Barriers to implementation as reported by hospitals in the 2006 OHA e-Health Readiness Survey. (Total results are greater than 100 per cent since hospitals were invited to indicate a barrier for each functional area in which they were reporting low adoption levels.)

Capital requirements for e-Health initiatives are not currently funded by the MOHLTC through the existing capital funding formula. Health care providers wishing to implement an innovative e-Health solution must raise the necessary capital themselves if they wish to incorporate the benefits of e-Health into their organizations. The challenge, in a time of constrained health care resources and competing health care priorities, is the competition for funding between a direct patient care investment and a longer-term strategic investment, such as an e-Health solution, which often has less immediate visible organizational and systemic benefits.

Further, when a capital investment in e-Health is currently deemed an organizational priority, health care providers are often forced to seek alternate sources of capital financing and directly assume the associated principle and interest payments of a mortgage or lease arrangement. In essence, Ontario's health care providers are mortgaging their future operating budgets, by assuming financial obligations that draw on their operating funding to pay for necessary e-Health capital.

As of March 2007, the hospital sector in Ontario was in a negative net working capital position of almost \$673 million. Working capital describes the money an organization has available to meet current obligations, usually those defined as those due in less than one year. The net negative working capital position of Ontario's hospitals originates in large part from decisions made in past years by individual hospitals to borrow funds from private lending institutions for operating costs not covered by the MOHLTC. The annual interest cost to the Ontario hospital sector alone in carrying these loans is estimated at \$20 million. The combined interest cost of funds borrowed by the hospital sector and Province of Ontario to cover these costs is estimated at \$60 million. Interest paid on these outstanding loans diverts funds from frontline patient care and creates a real barrier to the funding of innovative initiatives, such as e-Health.

Delayed Financial Benefit Realization

The costs of e-Health are well understood. The benefits, however, are somewhat more difficult to quantify, as they are often spread across the broader health system. While the economic research on the financial and non-financial return on investment for e-Health is in its infancy, the early research supports the widely held perception that e-Health delivers at least some benefits to financial efficiency. Booz Allen Hamilton (for Canada Health Infoway), Price Waterhouse Coopers (PWC), and the European Union's e-Health Impact Project have all noted tangible positive benefits to e-Health. The questions, though, are “how much” and “when.”

While many of the costs for implementing e-Health solutions are incurred up front, the benefits are not always immediately realized. Studies suggest that the financial benefits through productivity improvements are not realized until a level of functionality is reached that allows systems to truly serve the needs of clinicians and system planners.

In its report for Canada Health Infoway, *Pan-Canadian Electronic Health Record (EHR): Projected Costs and Benefits*, Booz Allen Hamilton suggests that the national, systemic fiscal cost-benefit after 10 years is actually negative \$1.5B, having reached a positive cash flow by year seven and breakeven by year 11. By year 20, the systemic (national) savings is estimated at almost \$20B.

This is further supported by a 2007 study by PWC of nearly 2000 hospitals in the United States, which found that the attainment of productivity improvements and improved service efficiency followed on average two years behind initial health care IT investment.³ The European Union's e-Health Impact Project identified a 2:1 return on e-Health investment when benefits were given a dollar value; however, the average breakeven point for the e-Health initiatives studied was five years.⁴

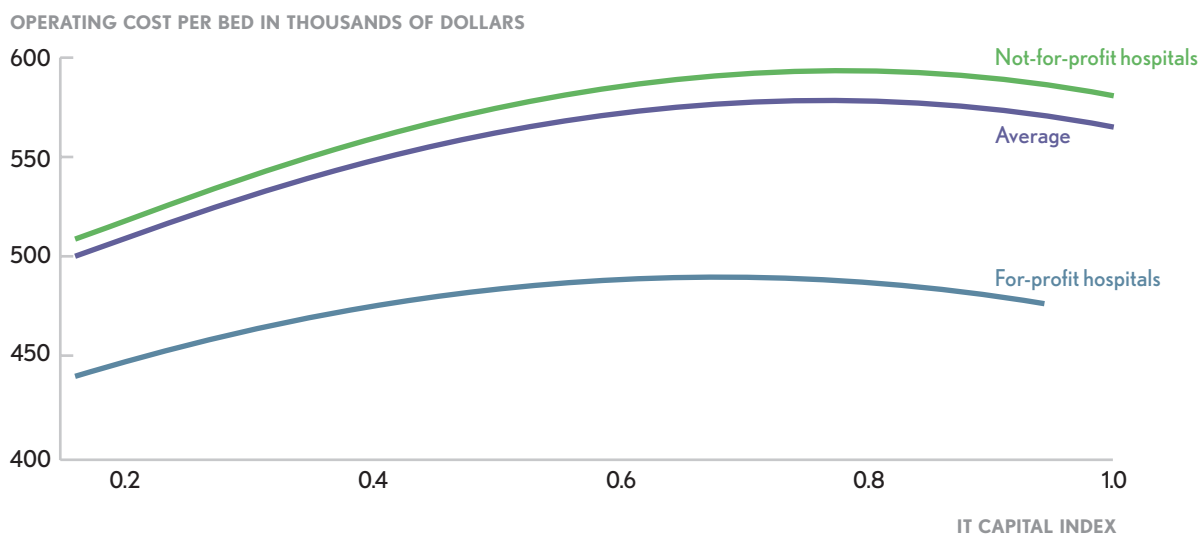


Figure 3: Effect in 2000 U.S. hospitals of IT Capital Index (i.e. level of e-Health adoption) with two-year lag model on Operating Expenses per Bed by Hospital Type. Source: *The Economics of Hospital and IT Performance*, Price Waterhouse Coopers, 2007.

3 *The Economics of Hospital and IT Performance*, Price Waterhouse Coopers, 2007

4 Stroetmann, Karl A., Jones, T., Dobrev, A. & Stroetmann, V.N. (2006). *eHealth is Worth it: The economic benefits of implemented eHealth solutions at ten European sites*. Committed by European Commission, Information Society, and Media DG. Section 3.2 “Economic impact on a virtual health economy”, Chart 3, p. 22. Retrieved from: <http://www.ehealth-impact.org/download/documents/ehealthimpactsept2006.pdf>

The PWC study further suggested that, while IT capital investment has the potential to positively bend the cost curve by displacing costs within individual hospitals and across the system, a minimum investment threshold must be reached before benefits can be realized. As such, operational expenses will actually continue to rise until the point when the level of capital investment in IT passes this tipping point, after which, operational efficiencies will begin to be realized (see Figure 3).

Therefore, to realize timely financial return on investment in e-Health, it is important to migrate as quickly as possible from a paper-based system to a robust electronic environment. This migration requires investment, both in seed capital to enable the purchase of e-Health technology and in operating dollars to support the implementation, training and change management activities necessary to ensure that the solution succeeds in positively impacting patient care.

The challenges of delayed financial benefit realization point to the necessity that e-Health be viewed as a strategic investment priority at the provincial level. Hospitals and other individual providers, faced with heavy up front costs and delayed benefits, will continue to be forced to choose between short-term direct patient care priorities and long-term e-Health investments, with a predictable preference for the former. Only the Province of Ontario can afford to take a truly long-term and systemic approach to this challenge and can prioritize the specific, multi-year commitments that will allow citizens, be they patients or taxpayers, to experience the eventual financial and clinical return on investment of e-Health solutions.

In addition to the direct, long-term financial benefits e-Health can provide, there are many other wider, macro economic benefits that should also be considered. It is believed that a province enabled by robust, interconnected e-Health can improve methods and corresponding results in many areas including chronic disease management, immunizations, managing care

in the community and at home, and the length of time it takes to navigate the health system. The investment cost of these sorts of e-Health enabled innovations can be offset by the corresponding benefits to patients and society in the form of greater productivity and mobility, not to mention the investment in a high value, knowledge-based industry.

Hospitals...will continue to be forced to choose between short-term direct patient care priorities and long-term e-Health investments, with a predictable preference for the former.

Lack of Strategic Alignment

The evolution of e-Health in Ontario, from a collection of independent local and provincial initiatives into a cohesive, efficient system that effectively meets local patient needs in an efficient manner, requires strategic alignment. In the current system, the lack of alignment – a natural result of e-Health's organic development – has resulted in redundancy and inefficiency.

Lack of alignment and the absence of a shared vision for e-Health is perhaps the greatest threat to the realization of e-Health's full potential. At the MOHLTC level, developing a shared vision for e-Health that crosses ministries, departments, accountabilities and silos is critical for e-Health success. Currently, the lack of e-Health vision alignment creates an environment in which competing priorities, accountabilities and agendas prevent the realization of true system efficiencies from e-Health. For example, those managing provider performance

and accountability strategies and execution at the MOHLTC must share the same vision for e-Health as those managing e-Health at the provincial level; they must design complementary actions that coordinate incentives and expected outcomes and further encourage provider participation in the development and adoption of e-Health initiatives. Also, for those managing Access to Care information systems, it is not clear to hospitals how the sporadic introductions of these systems fit into an overall provincial strategic e-Health strategy.

Slow pace of e-Health implementation in the province has the potential to cause a net migration of skilled professionals out of Ontario.

Strategic alignment of e-Health activities among providers, the LHINs and the province is essential to ensuring full e-Health capitalization as well as the pragmatic application of limited health care dollars to both maximize return on investment and to attract further financial investment. Alignment does not mean investing in only a single approach to achieving a provincial e-Health vision, but rather it means ensuring desired outcomes are clear while also supporting provincial projects and regional and local initiatives that help build toward those outcomes. For example, if the various providers of the two northern LHINs can, together, produce an e-Health blueprint that builds on the system-wide vision of e-Health, the province should invest so that timely achievement of that vision can be effectively realized.

At the local level, the alignment of e-Health initiatives within each LHIN will foster improved communication between providers while ensuring the efficient use of local ICT resources. Aligning local provider and LHIN e-Health plans with provincial priorities will further improve efficiency by clearly defining provider participation requirements. Aligning and communicating priorities, as well as articulating them in accountability agreements, will allow for better financial, human resource and change management planning for e-Health initiatives among providers and will soften the impacts, often caused by the introduction of out-of-scope and unanticipated information system initiatives.

Inadequate Local Human Resource and Management Capacity

e-Health is a human capital-intensive undertaking. Skilled human resources are required in IT, informatics, clinical process, change management and education to enable the successful implementation, adoption and utilization of e-Health solutions to improve patient care. The lack of human resource capacity is clearly a challenge in Ontario and poses a significant risk to the success of Ontario's e-Health investment. The OHA recognizes that there are currently not enough trained and, in turn, affordable people with the necessary skills in health care IT and e-Health enabled clinical care to maximize the benefits of provincial, regional and provider investments in e-Health.

Further, the relatively slow pace of e-Health implementation in the province has the potential to cause a net migration of skilled professionals out of Ontario where the pace of implementation has been quicker. Young health care professionals in Ontario are increasingly technology savvy and in many cases expect integrated health care technology to support their practice patterns and patient care efforts. The creation of a health care environment that leverages technology to allow these new physicians and other clinicians to effectively practice is therefore essential to the further development of Ontario's clinical human resources.

Developing a local approach to e-Health integration, however, assumes that the LHIN and its providers have the capacity to create and implement e-Health solutions in a timely manner. While there are certainly skilled e-Health resources within the hospitals and other health service provider agencies, these resources are not fully engaged. The successful execution of a regional approach to e-Health therefore necessitates the allocation of dedicated human and technical resources for developing, fostering and adopting regional e-Health initiatives.

In addition to inadequate human resource capacity, the lack of a resourced local leadership structure inhibits inter-regional sharing of e-Health expertise and experience, thereby creating a barrier to the development of a seamless regional health system. Developing a resourced regional leadership will foster collaboration and provide an efficient, consistent approach to e-Health development and delivery at the local level. The current model, which relies on the goodwill of leading provider organizations, is not sustainable. The resources of leading e-Health hospitals are being stretched too thin and cannot continue to meet the growing demand for e-Health leadership and support without the provision of incremental funding.

Current Hospital Accountability Agreements

While the benefits of e-Health are numerous, they are often manifested at a health system level (and more directly with the patient), not a provider level. Therefore, while individual providers may currently fund e-Health initiatives through organizational operating funds and in-kind contributions, the benefits of their actions are felt outside of their organizational walls. While a number of health care providers, primarily hospitals, have accepted this reality as an unavoidable cost of advancing e-Health

and health care within their organization and across their region, it clearly creates a conflict in times of constrained resources. MOHLTC accountability agreements drive provider clinical and financial results that are clearly in conflict with broader regional thinking and e-Health investment.

Current Hospital Accountability Agreements (HAAs) and the Hospital Annual Planning Submissions (HAPS) on which the HAAs are based create a disincentive to hospital investment in e-Health solutions, especially those incurring costs for initiatives that benefit other providers. Both HAAs and HAPSs focus on evaluation of hospital performance through tangible, collaboratively developed financial, human resource and clinical performance indicators.

e-Health expenditures are currently classified as general IT expenses and are included in an organization's general and administrative expenses. As such, any incremental e-Health investment impacts a hospital's ability to meet the targets for reducing general and administration costs. The current HAAs create an incentive for hospitals to be the lowest cost performer in the immediate fiscal year, which acts as a direct deterrent to the kind of long-term thinking that drives e-Health investment. Further, the HAPS process creates a disincentive to the investment by hospitals in regional initiatives that confer benefits across the regional health system, as the benefits are not reflected in the HAA performance indicators.

The development to system-wide benefits requires system-wide thinking and investment. As the MOHLTC develops a new Service Accountability Agreement (SAAs) model (based on the HAAs) to guide the management of decentralized health care system, it is imperative to address these barriers to e-Health investment in the agreements. The SAAs must reward, not punish, proactive hospitals that are taking a regional approach to e-Health.

FREQUENCY DISTRIBUTION OF 2007 E-HEALTH ADOPTION INDEX SCORES FOR ALL HOSPITALS

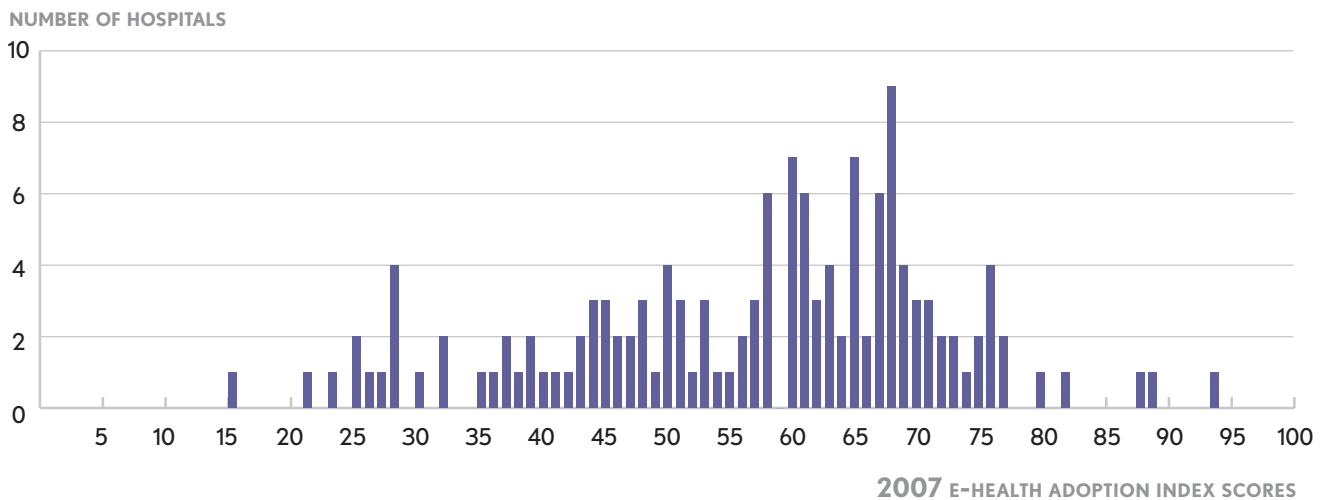


Figure 4: Overall Hospital e-Health Adoption. Source: OHA 2007 Hospital e-Health Adoption Survey

Current Local ICT Infrastructure and e-Health Adoption

The development of a proactive approach to enabling e-Health is a complex task. As noted in the results of the 2007 OHA Hospital e-Health Adoption Survey presented below, there is significant variation in the current level of e-Health infrastructure and investment across Ontario's hospitals. This variation becomes even more pronounced in the long-term care and community care sectors.

e-Health can enable integration and collaboration across a network of provider organizations. This integration, however, is dependent upon the state of ICT readiness of the least advanced organization in the network. Given the significant variation in the current level of e-Health investment and readiness, this creates a significant barrier to the entire enterprise of regional integration. Until the least advanced organizations, be they hospitals or other

health system partners, are brought up to a minimum level of ICT infrastructure, the progress towards full regional integration will be impossible. Hospitals that have not made e-Health a priority need to see it as an essential clinical investment to enable participation in system transformation, and not as an administrative expense. Accountability negotiations with LHINs must view e-Health investments through the same lens and establish sustainable funding models.

An effective e-Health strategy must recognize the unique starting points of regional providers and develop a sustainable funding model that encourages those who are behind to catch up by leveraging lessons and IT infrastructure and clinical processes from the leaders, wherever possible. At the same time, it is essential not to make the leaders wait for everyone to catch up. A well structured funding mechanism should keep the leaders engaged and reward innovation that contributes to improved patient care.

An effective e-Health strategy must also recognize that, notwithstanding the investments hospitals are making from their capital and operating budgets (see Figure 1), the pace of adoption is not enough to expect realization of an electronic health record in the near future. Figure 5 illustrates that between the summer of 2006 and the summer of 2007, e-Health adoption among hospitals advanced incrementally, as measured by the OHA's e-Health Adoption Index. At this pace of adoption, the average hospital will not be in a position to deliver the full value enabled through e-Health until 2019, with many hospitals unable to do so until many years later. In their 2007 election platform, the winning Liberal government promised an electronic health record by 2015.

As Figures 6 through 8 illustrate, inter-provider data sharing is a challenge that is only just beginning to be tackled. These graphs demonstrate how far the average hospital has progressed along the journey toward being able to share data with other types of organizations.

Unlike a hospital's investment in e-Health as part of its efforts to enhance internal practices and become paperless and filmless, where the delivery of value is realized directly within the institution and its own health outcomes, the benefits of inter-provider data sharing may be felt in organizations other than those needing to adopt the e-Health practices. For example, a reduction in lab tests benefits the OHIP pool and not necessarily the hospital lab. In situations like this, there is limited incentive to choose to invest in inter-organizational solutions as providers consider where to best invest their scarce resources. For this reason, while many hospitals are making real progress on adopting e-Health within the practices and operations of their hospital, timely success on inter-provider data sharing will depend on the LHINs and the Province to provide incentives to support connections.

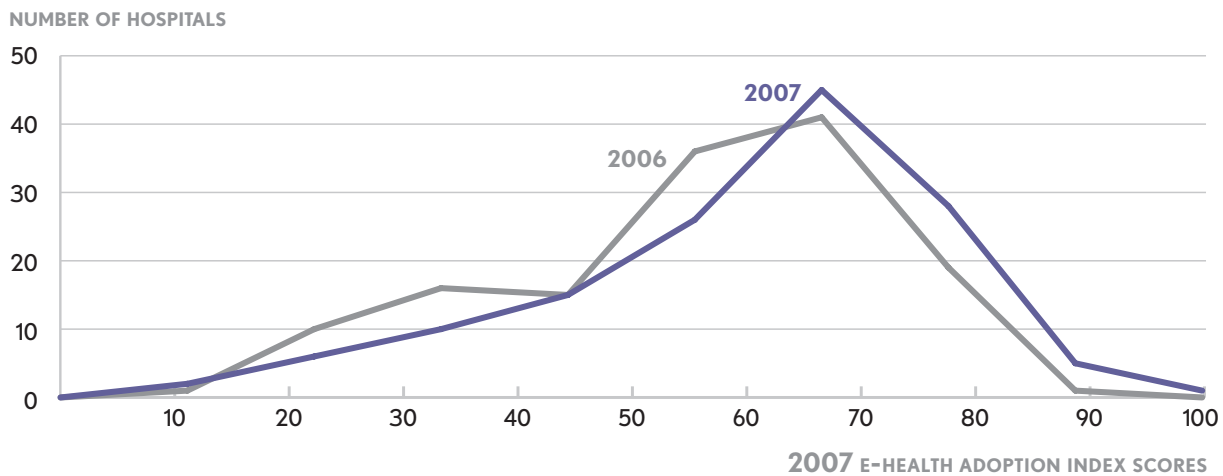


Figure 5: Hospital e-Health Adoption 2006 to 2007. Source: OHA 2007 Hospital e-Health Adoption Survey

INTER-ORGANIZATIONAL DATA SHARING WITH OTHER HOSPITAL CORPORATIONS

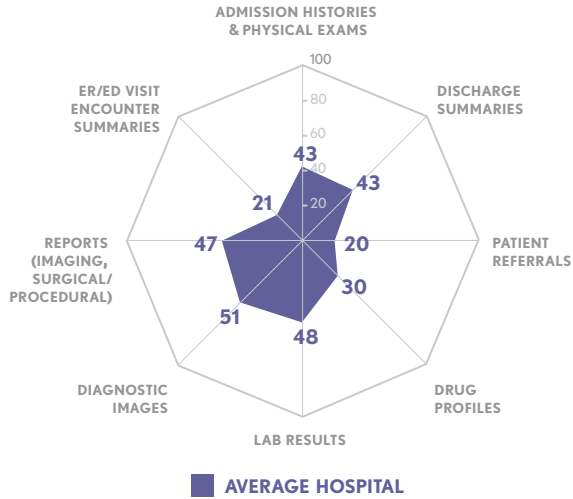


Figure 6: Source: OHA 2007 e-Health Adoption Survey

INTER-ORGANIZATIONAL DATA SHARING WITH CONSULTING PHYSICIANS IN THE COMMUNITY

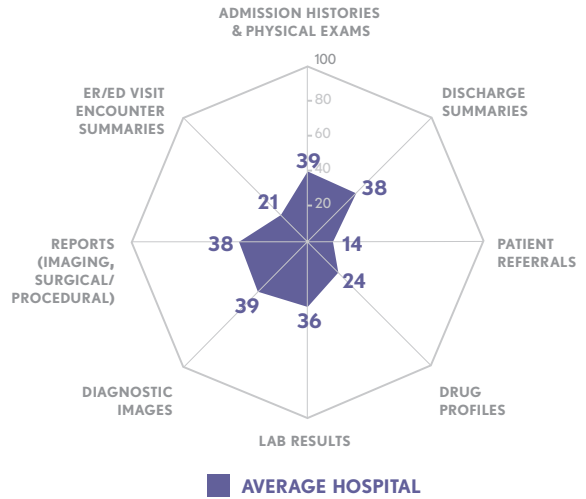


Figure 7: Source: OHA 2007 e-Health Adoption Survey

Government investment in these linkages is critical to achieve the promise of e-Health and enable system transformation. e-Health's potential to seamlessly move information between providers and organizations is a key enabler of new approaches to addressing many of health care's key challenges. Re-engineering of workflows, the approaches to care and where care is delivered are possible as the information silos between providers disappear. Hospitals, for their part, will embrace e-Health enabled linkages as a way to expedite the placement of ALC patients, empower Family Health Teams or support more effective community and self care for chronic disease sufferers. Only government investment in these e-Health linkages is going to make these transformations possible in a timely way.

INTER-ORGANIZATIONAL DATA SHARING WITH OTHER HEALTHCARE ORGANIZATIONS

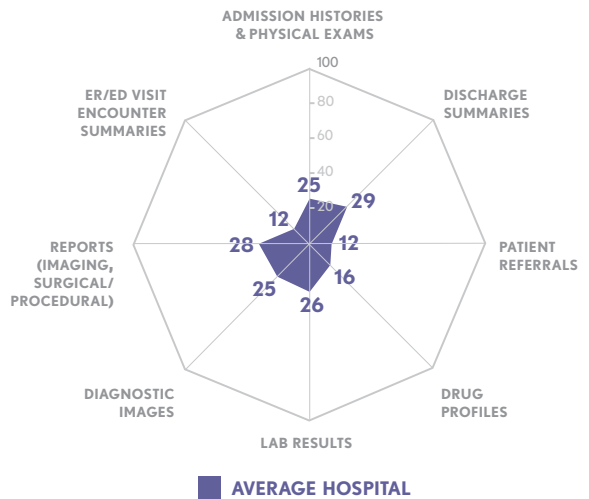


Figure 8: Source: OHA 2007 e-Health Adoption Survey

Making e-Health a Strategic Health System Priority for Ontario

The OHA supports the development of an approach to e-Health based on two essential themes: *Dedicated Strategic Investment in e-Health and Creating Effective Incentive Mechanisms for e-Health Alignment*. These two key themes are fundamental to the successful development and execution of an approach to e-Health that tangibly improves health care and health outcomes in Ontario.

Make Dedicated Strategic Investment in e-Health

Dedicated strategic investment in e-Health calls for a balanced approach to funding that gives full consideration to both the expected benefits of e-Health initiatives and the costs required to achieve those benefits. The OHA firmly believes that e-Health is a wise investment for both the MOHLTC and individual health care providers. As previously noted, there is a documented, positive financial return on e-Health investments. After the investment “tipping point” has been reached, the benefits outweigh the costs and eventually provide financial payback.

While this argument for continued investment is compelling, the more convincing reasons for dedicated strategic investments lie in the benefits for patients. Improved availability, integration and communication of health care information will result in enhanced care for those with chronic diseases, greater efficiency in interactions with patients, reduced medication errors, improved patient participation in their own health care, and many other positive outcomes. Strategic investment is required to ensure that the necessary funding is available for achieving these benefits.

Hospitals and other providers are not currently funded in a way that allows for long-term strategic investments in their own institutions, let alone in inter-provider opportunities.

To facilitate strategic investment in e-Health in Ontario, the OHA proposes the following key policy solutions:

POLICY SOLUTION 1:

Provide dedicated, multi-year net new e-Health operating funding

Through current operating budget allocations, Ontario hospitals have been balancing competing objectives and pressures to make the best e-Health progress they can with what they currently have. With LHINs in place, there is an opportunity to realize e-Health efficiencies through economies of scale at regional levels. In this new environment, providers are prepared to collaborate locally on ways to deliver efficiencies through economies of scale, automation and other means for spending their e-Health budgets most effectively. The OHA believes, however, that there is currently not enough sustainable operating funding in the system to foster the timely adoption, integration and automation needed to deliver the full benefits of e-Health to patients.

As previously mentioned, there is a significant delay between the substantial up-front investments required to adopt e-Health into the clinical environment and the realization of a financial return on that investment. Hospitals and other providers are not currently funded in a way that allows for long-term strategic investments in their own institutions, let alone in inter-provider opportunities. It falls to the provincial government to set and fund long-term strategic investment priorities such as e-Health.

Unless strategic investment is made a priority, e-Health capital will, more often than not, lose out when competing for dollars with short-term clinical capital needs.

To this end, the OHA strongly endorses the development of a sustainable multi-year funding strategy that provides net new investment for local and provincial e-Health initiatives, accelerating provider adoption and encouraging collaboration toward e-Health enabled integration. The OHA supports the provision of sustainable funding for local and provincial e-Health initiatives that align with and contribute to the realization of LHIN e-Health plans and MOHLTC e-Health priorities.

While there is agreement that both regional collaboration and net new investment in e-Health are required, concern related to re-profiling existing health service provider IT budgets to develop a LHIN pool of funding for local e-Health initiatives is valid. Health service provider IT budgets are currently stretched and are inadequate to meet the individual needs of provider institutions, let alone provide funding for regional initiatives.

For small hospitals and community providers this point is seminal. While all hospital e-health budgets are stretched, small hospitals and community providers face even bigger challenges with minimal IT budgets and few human resource supports – sometimes less than one staff position. A re-profiling of these budgets would seriously impede these organizations ability to support their current systems and e-Health adoption efforts and would prevent participation in regional initiatives. Therefore, while the OHA agrees with the need to drive local efficiency and develop a sustainable pool of local funding to encourage collaboration and integration, the OHA also endorses the provision of net new multi-year e-Health funding by the MOHLTC that minimizes the need for additional contributions from health service providers.

That said, the OHA does not rule out a funding model that requires some voluntary contribution from providers to participate in government-supported initiatives as a potential solution to involuntary IT budget re-profiling. Instead, and as discussed in Policy Solution #4, a recommended approach to funding regional, inter-provider e-Health projects is to establish a cost-sharing model in which the LHIN can encourage provider contribution to collaborative projects with additional funding incentives.

To support such a voluntary provider financial contribution model, hospitals and other local health care providers require a government commitment to sustainable multi-year funding. As noted above, providers must make financial decisions that pragmatically balance investment in e-Health with a myriad of short term priorities. Commitment to long-term sustainable e-Health funding at the provider level, will allow providers to make e-Health investment decisions that are patient-centred, whether enabling the providers' own immediate services or as a part of integrated, regional care.

POLICY SOLUTION 2:

Leverage new sources of capital for e-Health

Developing an adequate source of capital funding is critical to creating, implementing and adopting innovative e-Health initiatives. Capital investment is currently a limiting factor in the move towards integrated, collaborative e-Health initiatives and must be made a MOHLTC priority, if the benefits of e-Health are to be realized. Unless strategic investment is made a priority, e-Health capital will, more often than not, lose out when competing for dollars with short-term clinical capital needs like MRIs or new beds.

The OHA supports the development of a provincial e-Health Infrastructure Fund that provides a source of capital funding for e-Health initiatives outside of the normal MOHLTC funding mechanism.

While the OHA recognizes e-Health capital financing contributions from providers are essential to ensuring full commitment and active participation, providers cannot continue to mortgage their future operating dollars by bearing the full capital cost of the much needed e-Health investment. A separate, dedicated e-Health Infrastructure Fund can leverage the government's access to capital and expertise and provide an effective source of capital funding for initiatives that align with LHIN e-Health plans while also encouraging collaboration and integration of e-Health initiatives.

As part of this fund, the OHA encourages the MOHLTC to explore alternate funding sources for e-Health capital outside of the existing provincial health budget. For example, the MOHLTC has made significant strides in developing a positive funding relationship with Canada Health Infoway and should continue to actively pursue this funding option.

Infrastructure Ontario provides another potential option for developing additional e-Health funding above and beyond the existing e-Health envelope. Infrastructure Ontario is an arm's length crown corporation dedicated to the renewal of the province's hospitals, courthouses, roads, bridges, water systems and other public assets. Using an Alternative Financing and Procurement (AFP) model that ensures appropriate public control and ownership, Infrastructure Ontario uses private financing to strategically rebuild vital infrastructure. Infrastructure Ontario also provides Ontario municipalities, hospitals, universities and other public bodies with access to affordable loans to build and renew local public infrastructure. The e-Health Infrastructure Fund may be able to duplicate some of Infrastructure Ontario's success to support e-Health capital investments.

The Canada Strategic Infrastructure Fund (CSIF) represents another potential source of capital for innovative e-Health initiatives. The CSIF is a \$4B federal fund directed at projects of major federal and regional significance in areas vital to sustaining economic growth and enhancing the quality of life for Canadians. Given the potential of e-Health solutions for impacting not only patient care, but the health care IT industry in Ontario, there is clearly an opportunity for building a provincial case for the benefits of attracting e-Health vendors to Ontario and creating an environment that fosters a strong health care IT market.

Given the particular relevance of e-Health initiatives to Ontario's rural and remote communities, **FedNor** represents yet another source of capital. FedNor is a federal regional development organization in Ontario committed to enhancing telecommunications infrastructure and networks throughout the North. FedNor's goal is to ensure that Northerners can compete on both

a local and global scale by connecting communities through the development and enhancement of telecommunications infrastructure networks and ICT applications. The OHA encourages discussion with FedNor to explore opportunities for capital investment in e-Health solutions that meet the mandate of FedNor and also contribute to e-Health development in the rural and remote northern communities of Ontario.

The OHA supports discussions with each of these organizations to explore opportunities for leveraging individual expertise and investment programs to supplement provincial funding.

Alignment mechanisms must be designed to both provide incentives and to instill trust such that progress is made...through the energy and drive of empowered local providers.

Creating Effective Incentive Mechanisms for e-Health Alignment

While making dedicated strategic investments in e-Health is an important first step, successful health system transformation also requires creating incentive mechanisms to ensure the system is aligned toward a shared e-Health vision. If Ontario is to progress from a patchwork of innovative e-Health solutions to a truly coordinated, efficient e-Health enabled health system, tangible incentives are required. Alignment must happen both within the MOHLTC and between the LHINs, hospitals and other health system providers. Alignment mechanisms must be designed to both provide incentives and to instill trust such that progress is made not only through provincial projects, but also through the energy and drive of empowered local providers.

Recognizing the need for a shared vision, the OHA presents five policy solutions for the alignment of e-health activities and investments. These policy solutions have been designed to support and sustain a collaborative approach to e-Health – one that recognizes and leverages local, regional and provincial e-Health successes, while also minimizing the redundancy and duplication inherent in the current system.

POLICY SOLUTION 3:

Hospitals welcome accountability to meet priorities and standards

Hospitals welcome the opportunity to be held accountable for their business objectives and to adhere to provincial standards in exchange for incentives that can accelerate e-Health adoption. Whether it's the Wait Times Strategy and its target outcomes, the soon-to-be-implemented Ontario Laboratory Information System, or adherence to Canada Health Infoway standards for PACS, hospitals have demonstrated that they can work in a system of expectation and incentive to help achieve a system vision. If the Province can set priorities and expectations, and support them with incentives and accountabilities, it will succeed in making e-Health a strategic investment priority without limiting progress to only centralized projects.

Along with clear business objectives, standards are also important to achieving an aligned outcome for e-Health. Clear standards will allow nimble and outcome-focused providers to work locally and regionally, while still building toward a common objective. Without clear standards, there is a risk that each LHIN will develop its own collaborative network unable to support patient referrals and movement across LHIN boundaries. Clear business objectives, delivered through common e-Health standards, and reinforced with accountability mechanisms and incentives will enable providers to move e-Health adoption forward with the confidence that they are aligned with a larger vision.

Just as the OHA encourages the communication and application of e-Health goals, priorities and standards to LHINs and providers, it also encourages similar alignment throughout the MOHLTC's departments, divisions and agencies. Internal misalignment of priorities and expectations among health care's stewards creates direct conflict for providers with multiple MOHLTC lines of accountability, which can, in turn, create cynicism and discouraged participation among providers.

An internally aligned and communicated e-Health vision and approach must serve to remove structural and operational MOHLTC barriers as a way to demonstrate adherence to accountability agreements and strategic priorities are consistent with e-Health advancement in an environment of scarce resources. This includes not adding the adoption of e-Health and information system applications as unfunded mandates after negotiating accountability agreements or completing project adoption agreements.

POLICY SOLUTION 4:

Support local mechanisms for alignment and execution of integrated e-Health initiatives

An important objective for dedicated net new funding must be the fostering of provider collaboration and integration at the LHIN level. In particular, the government needs to invest in the e-Health linkages that will connect providers. These linkages are the foundations on which system transformation will occur, enabling valuable benefits like expediting the process of placing ALC patients from hospitals into long-term care homes or patient-centred, chronic condition care for those who are aging at home. With the creation of LHINs and regional e-Health Councils, along with the development of LHIN e-Health plans, regional coordination is beginning to take shape. In addition to collaborative leadership models and regional e-Health strategic plans, there needs to be supportive funding mechanisms that encourage alignment and support linkages and integration.

The government needs to invest in the e-Health linkages that will connect providers. These linkages are the foundations on which system transformation will occur.

Many potential e-Health solutions will provide a systemic benefit or benefits realized by providers other than implementing hospitals. This can be a significant disincentive to hospital investment. For example, while hospitals are invariably the largest health care providers in a LHIN, their budgets do not have the elasticity to absorb the costs of equipping or building linkages to connect other providers with hospital information systems. Hospitals are very enthusiastic about the prospect of connecting with Family Health Teams, Primary Care Physicians, Community Care Access Centres and other providers in their communities, but cannot be expected to fund the connection of these others into the hospital systems. The OHA believes the government must be responsible for these costs and, to this end, recommends the provision of incremental funding to the LHINs (from the recommended net new investment) to encourage and support the alignment and execution of collaborative regional e-Health initiatives.

The OHA recognizes that regional diversity in priorities, expertise and readiness precludes the development of a prescriptive, one-size-fits-all approach to e-Health planning, solutions and implementation. The government must therefore remain flexible as it provides incremental funding for collaborative initiatives with regional benefits, permitting regionally appropriate mechanisms.

Since LHINs are the chosen method for managing integration and collaboration, clear provincial standards must exist to prevent the creation of 14 silos.

As investments are considered, it is important to remember that LHINs are an imperfect lens through which to view collaboration, since patient referral and movement patterns do not strictly adhere to the same boundaries. Since LHINs are the chosen method for managing integration and collaboration, clear provincial standards must exist to prevent the creation of 14 silos. With standards in place, regionally-flexible solutions are most appropriate for addressing each local context.

The OHA further recommends the development of a cost-sharing model in which the government invests in regional integration initiatives that align with the provincial e-Health vision and in which providers also provide financial (or in-kind) contributions. The OHA asserts that a funding model requiring some provider contribution to participate in government-supported initiatives is a preferred solution to involuntary IT budget re-profiling. Enticed by government investment available for local integration initiatives, organizational participation in each initiative will often benefit from at least nominal organizational investment to establish commitment. In such a model, each health care provider organization has the opportunity to make organizational investment decisions based on the organization's starting point, the perceived benefits of participation and its Service Accountability Agreement obligations (see Policy Solution #6). The combination of SAA incentives and

supplemental investments drawn from regional e-Health integration funds should be powerful motivators to provider participation. From the OHA's perspective, it is reasonable for the government to withhold access to incentives designated for integration from non-aligned organizations. That said, the flow of investments earmarked for integration initiatives should support regional e-Health collaboration while preserving provider flexibility to invest in areas of individual need and priority.

Similarly, other provincially-funded agencies and initiatives should also be encouraged, through mandates and funding mechanisms, to align with the provincial strategy and support LHIN leadership and flexibility. These other programs should be aligned to complement, not compete with, the plans and efforts of regional e-Health strategies and the consumption of limited resources and the capacity of the field to absorb change.

POLICY SOLUTION 5:

Provide incentives to encourage sharing

Sharing of expertise, skills and advanced technology is fundamental to e-Health alignment and continued progress. Reliance on the over-tapped goodwill of leading providers is not sustainable.

The OHA, therefore, recommends a portion of the proposed net new MOHLTC investment provided to the LHINs for e-Health should be used to encourage sharing of resources and expertise among providers by:

- Creating a pool of funds that can be used to offset the costs of hospitals who are sharing their people and expertise.
- Developing a secondment system that allows hospitals to keep their professionals, even as they are on loan or shared. In such a model, one source of compensation for a hospital that is sharing its personnel is the incremental growth in experience of shared individuals.

- Developing e-health implementation teams that provide coaching expertise among experienced providers but also possess the authority to direct activities within their various organizations.
- Providing change management support for inter-provider sharing. This provides assurance that e-Health solutions and applications shared from one provider to another have a greater likelihood for successful adoption in receiving organizations, making sharing worthwhile.

The OHA further suggests that the acceleration of regional collaboration can be additionally advanced through the development of a true incentive system in which e-Health leaders are financially rewarded for their leadership and the development of systemic benefits.

POLICY SOLUTION 6:

Develop and implement Accountability Agreements that treat e-Health as a strategic investment priority

Hospital funding is currently based on the completion of Hospital Annual Planning Submissions (HAPS) and the subsequent negotiation of Hospital Accountability Agreements (HAAs) with the MOHLTC. With the move towards Accountability Agreements between the MOHLTC and the LHINs (MLAAs) and Service Accountability Agreements (SAAs) between the LHINs and local health care providers, there is an opportunity to rethink the accountability agreements and performance indicators that define the future provision of health care services in Ontario.

The OHA recommends that MLAAs and SAAs be the principal means to align priorities, establish target indicators and participation expectations both between the province and the LHINs as well as between LHINs and local health care providers.

The OHA also supports developing and including an additional schedule in the new Hospital Service Accountability Agreements that clearly define e-Health participation expectations for each organization. The additional schedule will outline the activities for each hospital's participation to help the LHIN achieve its e-Health goals, which are, in turn, linked to provincial goals through its own LHIN-MOHLTC accountability agreement. With the understanding that both provincial and regional projects must co-exist as the system moves forward, identifying both types of e-Health initiatives in the SAA schedule, negotiated expectations, investment targets and performance targets can form a shared agreement of reasonable expectations and aligned priorities.

Further, for the purposes of the HAPs process and the associated metrics, the OHA recommends the repositioning of e-Health expenses within provider budgets as a clinical, rather than administrative expenditure. e-Health initiatives by definition support and enable the effective and efficient delivery of clinical care. By removing e-Health related ICT expenditures from the general and administrative line of hospital and health care provider budgets, a clearer picture of collaborative provider e-Health expenditures (versus organization-specific ICT expenditures) can be developed and organizational investment expectations set, as noted above. This repositioning further reinforces the clinical value of e-health initiatives and will encourage health care providers to maintain current investment levels in times of administrative cost cutting.

As the LHINs further define Service Accountability Agreements with other local health care providers, similar e-Health schedules should be adopted to ensure consistency across the continuum of care.

POLICY SOLUTION 7:

Create a dedicated e-Health Innovation Fund

The past success of e-Health initiatives in Ontario have been the direct result of local provider innovation and passion for improving patient care. Therefore, while it is important to create incentives to promote the sharing of experience and expertise, it remains vitally important to nurture an environment that rewards local e-Health innovation and creativity.

e-Health leaders and innovators must have access to resources to continue advancing the cause of e-Health at local levels and to develop innovative solutions that can be leveraged provincially. To this end, and in addition to preserving flexibility

within individual operating budgets for setting local priorities, the OHA recommends developing a provincial Innovation Fund for e-Health Initiatives. Administered by the e-Health Program Office, such a fund would provide grants for innovative local e-Health research and development initiatives with LHIN or pan-LHIN applications based on a transparent evaluation process and the intent to leverage successes more widely.

The fund should also provide benefit as a provincial economic development tool, as it helps to drive private sector investment and job creation in Ontario's e-Health industries.

Conclusion



e-Health has the potential to transform the health care system in Ontario. Realizing this potential, however, requires commitment. e-Health must be made a strategic health system priority if it is to succeed. To this end, the MOHLTC must provide dedicated strategic e-Health investments that leverage past local, regional and provincial investments and create the effective incentive mechanisms to encourage adoption, collaboration and innovation.

The OHA has developed this policy paper to provide pragmatic solutions to ensure that the true benefits of e-Health are realized for the health system, but more importantly for the patients. The OHA is committed to working with the MOHLTC to implement these policy solutions and to further define opportunities for leveraging Ontario's e-Health successes and continue improving patient care for tomorrow.

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