

White Paper

Patient-Centered Care

A Framework for Care Coordination

INTRODUCTION

A lack of connectivity and breakdowns in communication within the medical infrastructure are some of the major issues challenging the Canadian health care system. So too is a growing call from patients demanding faster access to the right services, improved outcomes and more involvement in managing their own health care. These are vital and interrelated concerns.

The main issue, however, is providing an exemplary health service that will respond to patient needs while leveraging technology advancements, without inducing a financial health care crisis.

This white paper sets forth a framework for patient-centered care. The framework will increase the capacity to optimize resources in an over-extended health care system. By redeploying resources to areas where patients benefit most, healthcare providers will be enabled to deliver better and faster patient interventions with treatment plans based on a patient's full medical history. Patient-centered care coordination can be achieved sensibly and economically and can evolve with the changing needs of the Canadian population.



By examining the major challenges in the Canadian health care system, this white paper proposes a patient-centered solution through the secure web-based exchange of information with the following benefits:

1. Access to patient information across all levels of care
2. Patient and health care provider interaction
3. Collaboration among health care providers
4. Optimal use of human and financial resources

CURRENT HEALTH CARE CHALLENGES

Escalating Costs

The Fraser Institute noted in 2011, “across Canada, government spending on health has grown faster (8.1% annually) on average than GDP (6.7% annually) since 1975. As of 2011, provincial health spending in Ontario and Quebec currently consumes more than 50% of total revenues.”ⁱ

Inefficient use of Resources

There are numerous reasons for the escalating costs, including duplicate testing and medication errors due to an inability to share patient information, poor hand-offs between levels of care resulting from inefficient methods of communication and an inability to coordinate care for patients. The latter often causes redundant and expensive tests and prescriptions as well as other unnecessary costs as a result of a lack of consolidated medical information about the patient.

Access to Patient Information

Richard Alvarez, President & CEO of Canada Health InfoWay, noted: “Astonishingly, every year almost all of the 100 million physician exams, half a billion lab and radiology tests, and 382 million prescriptions [in Canada] are handwritten. This critical information – buried in the filing rooms of 40,000 doctor offices, test centres, hospitals and clinics – is often inaccessible in crisis situations, when it is needed most. There are many reasons this antiquated approach cannot continue. It puts our safety at risk, and wastes money and scarce resources. It undermines every healthcare priority we have.”ⁱⁱ

Patient Safety

More troubling is the effect on patient safety. “Each year, between 9,000 and 24,000 Canadians die from adverse medical events,” the Ivey Centre for Health Innovation and Leadership reported. “By avoiding duplication of system information via common health records containing all patient documentation, practitioners can have more time with patients and families while minimizing errors due to misinformation or gaps in information transferred between health team members.”ⁱⁱⁱ



POSSIBLE SCENARIO

A woman in her late forties, who travelled considerably, became ill on a business trip and was unable to communicate with the emergency workers at the hospital to which she was taken by ambulance.

The attending doctor determined that she required several drugs, but he had no idea as to whether she was allergic to any of them or if they were safe to take in combination with medications she might already be on. One that he wanted to administer could have serious side effects if combined with several common heart medications.

The doctor also noted the woman had several herbal remedies in her purse and wondered how many others she might be taking. Some herbal products can react negatively with certain medications.

Frustrated, he wished it were possible to access her medical records online to alleviate any risk he might have to take. Ultimately, he determined it was more important to administer the drugs she required and gave them to her. Fortunately, no problems ensued.

This scenario is a daily reality for our Canadian emergency physicians. The difficulties they face are directly linked to the challenges in the Canadian health care system. The use of information technology can play a critical role to overcome these challenges and create a patient-centered approach to health care.

THE HEALTH CARE SOLUTION

One solution to the “impending health crisis” is to embrace “change faster and in greater capacities than ever before,” concludes the Ivey Centre’s report.

Focus on Patient needs

A key change that has to be made is one that countless parties trumpet as positive and easy-to-implement: patient-centered care. It is an essential component of any plan to reduce healthcare costs. And it satisfies the pressing need for patients to have a more active and empowered role in the treatment of their own health and that of their loved ones.

In July 2011, the Canadian Medical Association (CMA) and the Canadian Nurses Association (CNA) echoed that conclusion in a jointly released Principles to Guide Health Care Transformation in Canada.

At the top of their list was a call to develop a system that is universal, sustainable and truly centred on the needs of patients. The system needs to be transformed into one that puts patients first.

Such a system must provide patients with “seamless access to the continuum of care based on their needs.”^{iv}

Adoption of Technology

Despite Canada’s reputation as a leader in health care, Canada lags behind other countries in its adoption of technology in the health care sector.

“Overall, adoption rates of simple tools, like electronic medical records (EMRs) in private medical practice settings across Canada are still very low – in the range of 37 per cent,” says Ron Dunn, Vice President, Information Solutions at McKesson Canada. “There are 140,000 family physician consults per day in Ontario, compared to 3,000 visits per day in hospitals. Yet most IT investments have been at the hospital or provincial level, not the patient level. This is simply not sustainable. We need to take a more patient-centered approach to health care, and technology is a vital part of the solution.”

Both the Canadian Medical Association and Canada Health InfoWay echo those observations. In its report Healthcare Transformation in Canada, the CMA noted that health care information technology must shift from multi-billion dollar investments at the hospital level to a renewed emphasis at the patient level (family physician consults) where the majority of Canadian patients interact with the healthcare delivery system.

The report states that existing top-down investments have not yet resulted in significant benefits to providers or patients because

Canadians are increasingly demanding access to their health records and greater involvement in managing their own health concerns.

jurisdictions have focused their investment on large-scale Health Information Technology (HIT) systems and architecture. There has been little investment at the points of care where the actual benefits of HIT can be realized.

HOW EXACTLY DOES PATIENT-CENTERED CARE WORK?

Improved communication between patients and clinicians is a key element of patient-centered care. For too long, the dialogue between the parties has been somewhat parental. The clinician, often leafing through a folder that contains a patient's information, would suggest or prescribe treatments in an all-knowing manner, like a parent to a child. Rarely, if ever, was the patient allowed to see what was in the folder. If that did occur, the access was likely limited to whatever sections the clinician decided were appropriate to view.

Patient Requirements

In 2009, Steven Lewis Access Consulting of Saskatoon produced a discussion paper for the Saskatchewan Ministry of Health entitled Patient-Centered Care: An Introduction to What It Is and How to Achieve It. The paper cited work conducted by The Change Foundation, an Ontario healthcare think tank, which has long advocated patient-centered care. The Foundation conducted a series of focus groups to get a better understanding of the patient experience.

One the Foundation's key findings was that patients required functioning e-health systems to:

- Ensure that patients only need to provide information once
- Ensure that it is accessible to those who need it
- Give patients access to their records
- Provide the opportunity to add to the information

Effective Communication

Achieving genuine patient-centered care requires a cultural adjustment, the consulting firm wrote. Its list of essential actions providers must embrace if patient-centered care is to be achieved included the need to embrace "e-health and other technologies that expedite communication, flow, and efficiency." ^v

Supportive Information Technology

Modern technology allows for that relationship to radically change. The Commonwealth Fund, a private U.S. foundation that promotes high-performing healthcare systems, commissioned a study by Shaller Consulting called Patient-Centered Care: What Does it Take? Released in October 2007, the report, which was based in interviews with leaders of patient-centered organizations, identified seven key factors for achieving patient-centered care in their workplaces. One of the seven was "supportive information technology."

Physician-Patient Partnerships

Shaller said that supportive healthcare technology permeated virtually all the other six elements. "[It] engages patients and families directly in the care process by facilitating communication with their caregivers and by providing adequate access to needed information and decision support tools. Numerous applications of health-information technology have emerged in recent years, from simple e-mail communication between patients and clinicians to more sophisticated patient Web portals that enable patients to interact with their physicians' electronic medical records."

Most of the experts Shaller interviewed "agreed that supportive information technology is generally underused and that organizations at the forefront of developing patient-centered HIT applications are demonstrating that they can enhance physician-patient partnerships in care." ^{vi}



If it is a given that patient-centered care is the optimal model for today and tomorrow's healthcare system in Canada, then it must also be true that an essential component of that model is the use of modern technology to achieve that end.

THE RELAYHEALTH SOLUTION

Secure, web-based information exchange

McKesson Canada believes that patient-centered care is a partnership between doctor and patient based on clear communication, trust, sharing information, empowerment and coordinating care across the health system.

In November 2011 McKesson Canada launched RelayHealth in Canada, a simple, accessible web-based interface that provides complete and secure information flow between patients and all their healthcare providers, including physicians, laboratories and hospitals, wherever located. It is a patient-centered care solution, which is powerful, quickly deployed and a cost-effective tool.

RelayHealth is offered free of charge to patients with an email address and Internet access.

Already operational since 2000 throughout the U.S. where more than 24 million patients and 40,000 physicians use it, RelayHealth is the first interactive service that allows providers and patients to communicate electronically on a number of essential medical and health matters.

Patient & Provider Interaction

Patients, for example, can ask clinical questions via secure messaging, receive preventive care reminders, send a note to the provider's office, request prescription renewals and refills, request lab or test results, and request appointments. They can also securely store and manage their personal health record (PHR) information, including health conditions, allergies, immunizations, hospitalizations, office visits and their family health history.

Increasingly, patients have made it clear they want tools to manage their own care and that of their dependents. This latter point is particularly important as the population continues to age, and more adult children have elderly parents suffering from chronic ailments that require ongoing treatment.

A significant attribute of RelayHealth is that it allows patients to contact a health provider at any time, without having to make an appointment, travel to the health facility and then wait to see the provider. Obviously, in-person visits will still need to occur, however, often, the patient's concerns can be alleviated without having to attend a facility.

At the U.S. Army Regional Medical Center in Landstuhl Germany, RelayHealth was recently tested to determine its effectiveness. "We think it's more patient friendly," reported Capt. Rob Davis, Deputy Chief, Clinical Operations. "They'll be able to send us messages when it's more convenient for them. But also we'll be able to respond to them in a more timely fashion. It's been nice being able to alleviate some parents from having to bring kids in, and in pediatrics specifically. We've had good feedback so far."

Collaboration Among Providers

Providers can easily request referrals, coordinate care, send messages and exchange records with other healthcare providers with appropriate authorization. They can prepare and send reminders, alerts and other crucial information.

When treating patients they can augment information and instructions online that are often too detailed to impart during an office visit, from routine diagnostics to critical care for life-threatening issues. Patients can quickly and easily learn about chronic conditions, routine ailments and

procedures using resources offered in a wide variety of formats. These include electronic documents, digital animations and multimedia programs and information on more than 5,000 medical conditions and procedures and over 6,000 medications.

Joseph Galli, Director and co-founder of the Canadian Loeys-Dietz Syndrome Foundation in Montreal, says that RelayHealth is a truly innovative service that "fosters proactive collaboration between the different medical providers, allowing patients to have one touch-point for all of their health needs. RelayHealth will help health organizations, governments and institutions to improve patient health outcomes, integrate health information, and deliver accessibility and cost efficiencies."

Records Management

The benefits of a service that stores patient health records electronically are both immediate and long-term. One example of the former involves a patient's medication history. It is not uncommon for a patient who is seeing several providers to have duplicate prescriptions, some of which have lapsed. Frequently medications should not be taken in conjunction with other existing prescriptions. When this information is viewed on an ongoing basis by the patient and all caregivers, it can eliminate unnecessary over-prescription and possibly prevent negative health outcomes resulting from prescribing contraindicated medication.

Mississippi Health Partners (MHP), a managed-care organization, has provided an example of the long-term benefits. "Natural disasters, like Hurricane Katrina and recent tornados, destroyed lives and businesses and homes and left thousands without proper health records," an MHP spokesperson said in an online video. "Many people could not remember their medication and immunization histories and some even lost all records of their health problems. Having an online PHR makes sure this doesn't happen to you."

Security and Privacy

Security and privacy are undeniably critical concerns for all providers considering adopting a service such as RelayHealth, as they are for patients. Unlike email, which relies on multiple file servers distributed across the Internet, RelayHealth uses a single, centrally managed, secure database for all provider-patient communications. All messages are delivered to a Web browser using 128-bit, secure-socket layer encryption.



While RelayHealth empowers patients to participate in their own healthcare in a new and advanced way, it also allows providers to enhance collaboration and share data with others in the medical community.

A patient's information remains completely confidential and secure and is protected under Canada's Personal Information Protection and Electronic Documents Act and Privacy Act, as well as provincial Protection of Privacy Acts.

Providers, however, need not be concerned that everything in a patient's file will be accessible to the patient. The service is modular. In certain instances subjective notes that a physician might have made concerning a patient's treatment can be kept separate from the information available to the patient.

Customized Solutions

While it is possible for each provider and health care authority to create its own health information exchange system, the investment in time, money and maintenance to do so is far greater than using a proven, centralized system such as RelayHealth.

There are components and pieces of health information technology in existence, but RelayHealth is the first service that truly integrates all of a patient's health information and allows health care providers to communicate and collaborate with their peers at every point in a patient's care, as well as with their patients.

It would take years for hospitals or other providers to build and realize the benefits of large-scale Health Information Exchange system. With the urgency to improve patient outcomes, purchasing an existing service seems to be a far more efficient and cost-effective solution than building and maintaining a myriad of new ones.

RelayHealth is affordable for even the smallest health region, hospital or clinic. It improves care coordination

for better outcomes, maximizes use of current systems and workflows, improves accessibility to patients and other providers and increases staff productivity and patient satisfaction.

"The advantage of using this solution is that it achieves savings and better service in the shorter term for the health care system and it will help increase patient satisfaction," says Dale Weil, Senior Vice President, Integrated Healthcare Solutions, Strategy and Business Development of McKesson Canada. "Also, because RelayHealth is delivered as a web-based service, it accelerates implementation and is provided at a lower cost than other major health information technologies. It is a convenient service that provides the same view and same patient information across the entire health network."

CONCLUSION

RelayHealth: A Patient-Centered Approach that Works

Physicians who have more personalized discussions with patients and encourage them to take a more active role in their health care can help lower medical costs and reduce the need for some health care services, according to a 2011 UC Davis study.

"What's been termed patient-centered care can help eliminate or reduce unnecessary and costly testing and referrals to specialists," says family physician Klea Bertakis and study co-author Rahman Azari, a professor of statistics at UC Davis.

Patient-Centered Care has been identified by the Institute of Medicine "as one of the key actions for improving our nation's health," says Bertakis.^{vii}

Patients are increasingly challenging the established medical system to become more interactive. The early supporters all share the view that informed, motivated patients must play a much greater role in managing their own health if the policy goals of improving the quality of care and curbing costs are to be achieved.

RelayHealth, as discussed in this paper, can help satisfy the growing call from both patients and providers for a new relationship in Canada's health care system. It allows all stakeholders to have connected access to a patient's medical history, at all times. Most importantly, RelayHealth is a cost-effective solution that will redeploy resources to where they are truly needed.

Our health care crisis must be dealt with effectively as soon as possible. "There is no illusory 'tipping point' where health care becomes unmanageable," the Ivey report concluded. "There is only the constant challenge to provide better care and quality of life for Canadians into the future."

One important strategy to improve the future of our health care system is to embrace technology-driven solutions that can address the primary challenges faced by the current health care environment. The RelayHealth solution is available now and has proven to be an effective platform in the shifting paradigm of our health care system.

RelayHealth is a web based service that gives clinicians a complete picture of a patient's medical record, and enables interactions amongst care givers at every point of care such as a doctor's office, ER, hospital, or long-term care facility. It allows care providers and patients to securely collaborate and interact to share test results, book appointments or make electronic referrals. It provides patients with the tools to manage their own care and that of their dependents. RelayHealth is a trusted, current and complete electronic health record and information sharing tool.

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^{vi} Shaller Dale: *Patient-Centered Care: What Does it Take?* Shaller Consulting, October 2007

^{vii} UC Davis study finds that "patient-centered care" lowers health care costs. UC Davis Health System, Centre for Virtual Care. Press Release, June 24, 2011