Transforming Health Care Through Digital Innovations

CFH and CASHC Meeting Highlights

November 2017
Executive Summary

In the next decade, digital technologies, e-health, and artificial intelligence will transform how we design our health system and deliver health care services. New technologies will help break down silos, eliminate waste and inefficiencies, and engage and empower patients and families. From electronic medical records to personal wireless devices, digital health technologies have been and continue to be an important tool for improving the function of our health care system and empowering individual Canadians to manage their own health and wellness.

The Conference Board of Canada’s Centre for the Future of Health (CFH) and Canadian Alliance for Sustainable Health Care (CASHC) convened at the Conference Board’s offices on November 8 and 9, 2017, to learn about and discuss the evolution of e-health and digital health care innovations and their increasingly important role in shaping Canadians’ health and health care. CASHC members engaged in a strategic foresight facilitated session about how e-health will impact the health of Canadians in 2035, and CFH convened Canadian thought leaders for several digital innovation-related panels and discussions.

On the first day, the strategic foresight session uncovered some valuable takeaways regarding how health care stakeholders might prepare for digital health in the future, regardless of the amount of data sharing or the level of cyber security in the system:

- Data sharing is necessary on some level, whether or not it is done securely.
- For any level of sharing, we need to understand the trade-offs. Knowing what people are willing to share and what they are willing to give up will help us find the optimal balance.
- Having more data means you are exposed to more risk. We need to identify, prioritize, and balance what data are needed, and for what purpose. To do so, we must understand the costs and benefits of different types of data. The appetite for risk needs to fit the system.
- The roles of health care workers will need to be redefined. To prevent a future digital health skills gap, it will be crucial to determine what types and levels of skills will be necessary for different health care stakeholders.

On the second day, related to digital health innovation, the key takeaways from panelists were as follows:

- A national, cohesive vision that sets bold, aggressive goals with measurable targets and benchmarks is crucial to systemic digital health transformation.
- If we want a truly patient-centric system, we should co-design everything with patients. Importantly, we must provide the opportunities, tools, and resources to empower them to bring a patient-centric perspective to health care system innovations.

Health care stakeholders must build new expertise and innovative capacity to enable the development of inventive solutions and fully realize the system-wide benefits of digital health. This requires collaboration across the whole system: governments, health care organizations, doctors, nurses, academia, and patients.
How Will E-health Impact Canadian Health and Health Care in 2035?

Workshop Leader: Satyamoorthy Kabilan
Director, National Security and Strategic Foresight
The Conference Board of Canada

E-health is an overarching term used to describe the application of information and communications technologies in the health sector. It encompasses a whole range of purposes across different settings, including workplace well-being, public health, and the health care system. The ability to collect, store, and analyze vast quantities of data holds tremendous promise for research, innovation, and improved health outcomes. Being able to quickly and easily share information, including health records and client data, could play a major role in improving health services and population health while increasing health system efficiencies.

However, the wealth of information held within the health industry is also a prime target for hackers. Full medical records and health profiles are far more expensive on the dark web than a stack of stolen credit-card details. Globally, health care has generated some of the largest data breaches we have witnessed over the last few years. While e-health offers a lot of promise, it also creates some significant risks.

Strategic foresight offers tools to envision a range of futures and explore the uncertainties generated by a rapidly evolving environment. By exploring several futures, we can gain a better understanding of how our choices might be impacted by change and what we can do today to move us towards a preferred future. In this exercise, participants explored four plausible future scenarios around the impact of cyber security and information-sharing on the future of e-health in Canada out to 2035. These scenarios are illustrated in Exhibit 1.

Exhibit 1: Four Scenarios for E-health in Canada in 2035

1. Leaky data
   - Extensive data sharing
   - Poor cyber security

2. Safe sharing
   - Extensive data sharing
   - Strong cyber security

3. Porous silos
   - Limited data sharing
   - Poor cyber security

4. Lone wolves
   - Limited data sharing
   - Strong cyber security
Participants were asked the following questions:

- What must have happened between today and 2035 to bring about each scenario?
- Which health services are utilizing data sharing in each scenario?
- What impact has each scenario had on health care?
  - How is it different from today?
  - What are the specific impacts on patients and providers?
  - What are the pros and cons for patients and providers?
- What research should CASHC be doing today to help you deal with each scenario, should it come about?

**Key Highlights:**

**Scenario 1: Leaky Data**

In this scenario, health care system stakeholders are pressured by patients and patient groups to integrate their health data. Grassroots public support eventually turns this into a political issue, resulting in extensive data sharing without sufficient security planning. In this scenario, everyone is sharing everything.

This behaviour—and the drive to achieve better outcomes through sharing—extends beyond health care into other aspects of government. This results in several “Phoenix” scenarios, substantial duplication of effort, and a deterioration of trust in the health system. There is a loss of privacy and personal information, but the system is quick to determine when breaches occur and the negative impact on patients is limited.

There are many ways to optimize health outcomes with sharing, but there is debate over inequity resulting from some stakeholders leveraging the data better than others. Savings are realized from improved outcomes, but insurance companies, doctors, and other stakeholders are disrupted by new technologies and the need for new skills. As a result, there are lots of new entrants in health care. Providers bear many of the negative impacts of this scenario, with companies having to deal with issues such as privacy lawsuits and ransomware.

To prepare for this future, we need to determine the roles and training requirements (e.g., data analytics) for providers and other stakeholders in a data-rich environment. Understanding what skills and data are necessary—and to whom—will be crucial to optimizing service delivery. We also need to understand the public’s willingness to share information, and be able to distinguish between perceptions of privacy and its legal realities.

**Scenario 2: Safe Sharing**

In this scenario, people take a high level of cyber security for granted. To get to that level, however, patients and consumers need to want it. One way this could occur is through a crisis of major breaches, triggering behavioural change and making it politically comfortable to spend money on the necessary IT infrastructure. This leads to privacy legislation, a data sharing framework, regulations, and standards.

Consumers become the centre of the system, with real-time biofeedback used to transmit health data. Wellness is well-defined and the path to achieving it is made clear via profiling for mental and physical health, and personalized treatment optimization. There is a tendency to think the whole system will become automated, but large components of care still depend on empathy.
and human interaction. Physicians are still highly valued, but technologies are better-suited to certain tasks, including enabling patients’ ownership and stewardship of their health.

The moral and ethical issues associated with profiling individuals using information and data need to be deeply considered for this future. Understanding which data are most important to better health outcomes, as well as the costs and benefits of tracking and using that data, will help determine priorities and narrow the debate.

**Scenario 3: Porous Silos**

In this scenario, many Canadians and large institutions experience personal health data breaches, leading to numerous legal and financial repercussions and a very low level of trust in the health care system. The government invests in an integrated data sharing system and experiences a large political scandal that limits similar investments. There is a prolific amount of dark web activity, where criminals monetize and sell data, with weak legal repercussions or disincentives. As a result, there is no sharing in the health care system unless necessary. Patients still provide data to payers, but not on a large, aggregate scale. There is also still some data sharing between like institutions, providers and payers, and regionally.

Patients are empowered by protecting their data, but inequities arise because not everyone is properly equipped to manage them. This leads to the advent of new professions, such as personal health data navigator, and a larger market around health data protection. There is limited virtual health, more personal interactions, and a larger need for health human resources.

To prepare for this scenario, we need to better understand the legal implications of health data sharing, and the risks and benefits of digital health integration into the health care system.

**Scenario 4: Lone Wolves**

In this scenario, a major fear event results from a data breach, whereby high-profile data are exposed to the public. This has catastrophic consequences (e.g., injury or death results from a cyber attack on pacemakers) and motivates institutions to lock down their respective data.

As a result, limited data sharing occurs, and what little does occur is intra-institutional. None of the benefits of sharing (i.e., improved health and economic outcomes) are realized. Patient privacy is protected with secure data, but there is duplication of diagnostic tests. For better or worse, providers won’t be subject to comparisons and rankings.

Researching what kinds and levels of security are required for different kinds and levels of data sharing will help stakeholders prioritize data and take an individualized risk approach.

**Key Takeaways**

- Data sharing is necessary on some level, whether or not it is done securely.
- For any level of sharing, we need to understand the trade-offs. Knowing what people are willing to share and what they are willing to give up will help us find the optimal balance.
- Having more data means you are exposed to more risk. We need to identify, prioritize, and balance what data are needed and for what purpose. To do so, we must understand the costs and benefits of different types of data. The appetite for risk needs to fit the system.
- The roles of health care workers will need to be redefined. To prevent a future digital health skills gap, it will be crucial to determine what types and levels of skills will be necessary for different health care stakeholders.
Day 2: November 9, 2017

Welcome Remarks From the Co-Chairs and Roundtable Introductions

Patrick Dicerni
Assistant Deputy Minister
Strategic Policy and Planning Division
Ontario Ministry of Health and Long-Term Care

Louis Thériault
Vice-President, Industry Strategy and Public Policy
The Conference Board of Canada

Patrick Dicerni and Louis Thériault set the stage by describing key aspects of digital health and posing several questions to the group. As participants introduced themselves around the table, they also offered insights about some of the top digital health issues on their minds.

**Key Highlights:**

- Digital health innovations can improve health care access and offerings, speed up development of new products and services, and enable better care for both patients and caregivers.
- Through the intelligent use of data, we can improve health care jobs in Canada and better understand how to impact health and health care outcomes.
- With digital health innovations, responsibility can be shifted to allow patients to take charge of their health. Additionally, a patient-centric approach will help us understand the full constellation of individuals responsible for any single patient, especially those with complex needs.
- Ultimately, we need to increase awareness of digital health innovations by disseminating existing research and success stories.

**Questions Arising From This Session:**

- What is the true, bold vision of digital health integration?
- What is the concept of data integration beyond health care?
- What is the collective impact of investment in government programs and policies on society, and where do the benefits accrue?
- How do we move Canada beyond pilot projects for innovative health care?
- How do we manage the tensions between patients, providers, and financial constraints?
- How do we make health care service delivery more accessible to patients in an equitable way?
Innovation Lessons for Canada

Zayna Khayat
Innovation Sherpa in Chief
RShape Centre for Innovation
Radboud University Medical Centre, the Netherlands

Zayna Khayat inspired the group with examples of health system innovation around the world that could translate to the Canadian context. She drew on seven lessons learned during her one-year sabbatical in the Netherlands, where she worked on a series of health innovation initiatives for that country and internationally. She discussed the paradigm shift occurring in health care from the one we all know, built around a system of hospitals, doctors, and clinics, to one centred on the patient. This paradigm shift is being driven by three main forces:

1. Demand for health care services and products is exceeding society’s ability and willingness to pay.
2. A massive awakening of the patient/consumer/employee is changing their wants, needs, and expectations.
3. Technological advancements are allowing us to do something about [1] and [2] in ways that were not previously possible, at scale.

Key Lessons:

1. **#PatientsIncluded.** Authentically co-design everything with patients. They should be setting the agenda and industry should be responding. This requires a truly patient-centred approach, rather than just consultation on initiatives that have already been designed without them (e.g., policies, initiatives, conferences).

2. **#NursesIncluded.** Nurses are a vital, untapped pool of resources. They know everything that patients and families need on the front lines. Don’t talk about nurse leadership, but reframe it as “entreprenurse” to empower nurses as vital innovators in our health workforce.

3. **Believe.** Set concrete, bold goals, get out of the way, and let the ecosystem deliver. The Netherlands has set a bold digital health agenda, with the following hard targets to be achieved by 2019:
   - 80 per cent of chronically ill people and at least 40 per cent of other members of the population have access to their medical records.
   - 75 per cent of chronically ill people and vulnerable elderly people must be able to self-monitor certain aspects of their own health, such as blood pressure.
   - Everyone must have 24/7 access to a care provider, via whatever channel they prefer.

4. **Shared reality:**
   - Everyone (insurers, regulators, government, patients, etc.) must have a shared reality of the health system’s future. As the Dutch do, Canada should send a group to the Exponential Medicine conference every year.
• Have a common definition of innovation—scope, boundaries, what it is and is not. **Innovation ≠ improvement.** You can't use the improvement toolbox for innovation, yet in Canada most health care stakeholders use those words interchangeably. This leads to improvements in the status quo, rather than rebasing, which is what is needed.

5. **Honour your work through good design.** Design is a key gap in capability across all parts of health care, but recognition is growing. Physical space can be a key factor in innovation and encouraging staff to thrive. Zayna suggests that designers should be embedded in every health team/committee.

6. **Build capacity for innovation.** Health care is becoming a non-hierarchical, dispersed model; new competencies are needed for innovation in this new structure. Health systems in the U.K., Sweden, and the Netherlands are building the competencies, mindsets, and skills necessary to empower staff to lead innovation, including human-centred design skills.

7. **Ego-Ecosystem.** New ecosystems develop because people aren't holding on to power. You can't build innovative capacity with a small, three-person team. You need the whole system in the room. Deliberately seek out, translate, and adopt best practices.
Optimizing Health System Integration and Transforming Through Digital Innovation

Moderator: Joyce Drohan
Healthcare Practice Leader, British Columbia
PwC

Zach Weston
Manager, Health System Integration/Performance
Waterloo Wellington Local Health Integration Network

Geneviève Lavertu
Senior Director, Medtronic Care Management Services
Medtronic Canada

Marc Leduc
Senior Provincial Director, Innovation and Research
Alberta Health Services

From electronic medical records to telemedicine, digital health has enabled the transformation of the health care system and will continue to do so into the future. Digital health technologies connect people and organizations to deliver effective and efficient care. They enable the integration of community care into the traditional health care system, and increase system access for vulnerable populations, including Canadians living in rural and remote communities.

Panelists discussed the role of digital health in improving integration and collaboration within the health care system, approaches to achieving health system goals in a digital world, and the associated risks of digital health, such as privacy concerns and public trust.

Key Highlights:

No Technological Solutions for Psychological Problems
A holistic, co-design approach is needed to generate ideas for entrepreneurship and overcome digital health innovation challenges. This means testing new business models, developing new partnerships between academia and industry, and collaborating with students, patients, and clinicians. To implement new innovations, cultural change is needed and senior leadership must set goals and be willing to change multiple components of the system. This will require finding new ways to relate to patients, clinicians, and other key stakeholders who are crucial to digital innovation.

Data Centralization and Liberation
The development of an enabling IT platform that integrates health, payment, and related data will drive optimal resource utilization, better-coordinated care, and improved health outcomes. Similarly, providing patients access to their medical records and ensuring system-wide access to information and care at the right time will support these improvements.
New Models of Care in the Digital Age: How to Build Capacity for Improvement and Innovation

Onil Bhattacharyya
Associate Professor, Frigon-Blau Chair in Family Medicine Research, Women’s College Hospital, Department of Family and Community Medicine, University of Toronto

Digital health and health care integration are major opportunities for health care organizations, but taking advantage of them requires improving existing processes and developing entirely new services.

Onil summarized the core skills for health service development, and used case examples from leading U.S. health systems to present different organizational designs for innovation. He also described a range of methods used to build capacity for innovation in health care, and their relevance to the Canadian system. Participants had an opportunity to reflect on how they might enhance their ability to use digital tools to build better services and stronger organizations.

Key Highlights:

Innovation Capacity Building
There are three main strategies for building innovation capacity. First, organizations can increase internal capacity by holding innovation competitions, crowdsourcing ideas, having employees vote on which innovations to adopt, training staff in new methods, and giving staff time to innovate. Second, organizations should consider new ways of partnering with existing partners or seek new partnerships with start-ups, accelerators, design firms, and corporations. Third, organizations should hire a chief innovation officer or new staff, such as designers, developers, and entrepreneurs, build strong networks that connect different providers, and create health care innovation centres.

Health Care Innovation Centres
There are two main drivers for health care innovation centres—the strength of the link to senior leadership and the level of integration with front-line care—with pros and cons for each. A strong link to senior leadership, for example, can attract resources for the project, inform organizational strategy, and promote the adoption of innovations; however, the innovation agenda can be constrained and less likely to disrupt the organization. High integration with front-line care means that innovations can harness the insights of staff and are more easily adopted; however, new models must work within existing structures, innovations require cultural change, and the perspective of outsiders is lost.
Telemedicine is leading the evolution in connecting people to enable improved access to essential health care services, improvements in health care system efficiencies, and enhanced patient experiences. It allows for remote care, such as the diagnosis and treatment of health conditions, and enables collaboration across providers and organizations. As new technologies, such as wireless devices, make their way into common use, these approaches could reduce unnecessary hospitalizations and improve quality of life for many.

Panelists discussed innovations in telemedicine, examples of how it is being applied across the system, and the value of expansion from patient, provider, systems, and societal perspectives.

Key Highlights:

The Evidence
Whether through websites, mobile applications, video links, e-mail, or chat applications, telemedicine is providing more ways for patients to access health care from an increasing variety of health care providers. Telemedicine “improves patient access, reduces unnecessary visits to physicians’ offices and hospitals, and improves the satisfaction of providers and users alike.”¹ These virtual visits can take place at any time from the comfort of the user’s home or elsewhere if they prefer. Importantly, the total and marginal costs of telemedicine services allow them to scale. This means that telemedicine can support the health care system in meeting most of a population’s health care needs.

Risks, Issues, and Opportunities
While telemedicine is “growing almost exponentially due to its convenience, marginal cost, and the financial opportunities afforded to providers and telemedicine companies, there are issues and risks associated with the industry.”² With a proliferation of mobile applications and medical devices, there are risks associated with variation in implementation, practice standards, and medical device quality. These risks have the potential to affect patient safety as well as payment and medical standards.

² Ibid.
SOAR Facilitated Working Session: Digital Technology in Health and Health Care

Thy Dinh
Director, Health Economics and Policy
The Conference Board of Canada

- **Strengths**: What are the benefits experienced so far with digital health and health care in Canada?
- **Opportunities**: What are some areas for improvement? How can we address the challenges?
- **Aspirations**: Where do we want to go with digital technologies? What is the vision for digital health and health care?
- **Results**: What outcomes do we expect to achieve? What are the metrics or outputs by which we can benchmark progress in achieving these aspirations?

**Key Highlights:**

**Putting Patients at the Centre**
Participants acknowledged that digital health engages and empowers patients and their families, leading to greatly enhanced patient experiences. Patients are keen and willing to participate; however, health care stakeholders should make it a priority to enlist patients as part of the process. Co-designing with patients can bring a customer focus to digital health and boost demand.

A patient-centric system would mean citizens have a complete picture of their health and can manage it themselves. Assuring patients’ access to and control over their data would enable consistent and accurate information that could be shared at their choosing. This would reduce duplication and contradictions, allow for increased self-care, and increase patient satisfaction.

**Integration**
Digital health has helped increase access to and connectivity between providers (and patients), as well as increasing the linkages between information systems and health services to promote health and wellness. Canada still has a long way to go to connect its health data and systems and standardize the platforms and tools necessary for systemic digital health. Canadian health care stakeholders should set bold goals to work toward a highly integrated health care system.

This system should be highly connected and interoperable with fully integrated and standardized electronic medical records (EMRs), as well as provider access to complete and secure health records. Ideally, digital health should be seamlessly integrated into care, learning, research, and innovation missions. All provinces should at least have published standards for interfacing with their EMRs.

**Access**
Telemedicine and some other new remote services provide a 24/7 timetable. Digital health has the potential to drastically improve Canadians’ access to the health care system; however, Canada lags behind other countries.
If the entire health system was cloud-based, Canadians would have unhindered mobile access to their EMRs, family medical history, current medical status, lifestyle specifics, and recommended hyperlinks. Additionally, they would have a digital patient portal for sustainable, appropriate, 24/7 access to home care, specialists, services, and more. To track progress toward a highly accessible system, stakeholders could benchmark the percentage of Canadians that have access to their EMRs each year, with priority given to young, elderly, and rural individuals.

**Budgets/Funding**

Canada has a relatively affordable health care system with a strong existing funding base for digital health (e.g., Infoway, federal innovation funding). There is an opportunity to improve cost-effectiveness in the system by reallocating program funding and investing proportionately to the size of the digital health challenge.

Digital health could decrease the cost of health care delivery and reduce the need for ever-increasing budgets. Funds redirected toward the purchase of innovative technologies could help optimize resource allocation, promote just-in-time health care supply, and decrease the total cost of care per patient.

**Technology**

Basic digitization of health care data is nearly complete, and various technologies, such as telemedicine and wearables, are becoming more popular. There is a good foundation of technology from which to evaluate and select solutions to replace legacy systems and overcome issues of privacy, sharing, and access.

These technologies should be leveraged to automate and personalize health care, provide greater visibility of real-time operational and performance metrics, and allow people to stay at home longer, using the health care system when necessary. These technologies have the potential to generate extensive, high-quality data that could provide a holistic view of the patient and allow for advanced analytics at scale, ultimately optimizing health care and improving patient outcomes.

**Adoption**

With government support for early market engagement and demonstration projects, and provincial systems that are small enough to implement within, there have been many pilot projects in Canada that health care stakeholders can learn from. There is an opportunity for Canada to develop a national digital strategy that would allow for new models of collaborative service delivery, privacy management, and supplier payment.

A cohesive, national digital strategy would drive toward one vision with system-wide objectives. It would be flexible and adaptive enough to support emerging approaches in care, as well as allowing for wide-scale adoption of province-wide digital solutions and innovative procurement methods. A national digital strategy would ensure that the system works efficiently and can implement rational, optimal decisions. A concerted e-health effort would stimulate economic growth within Canada.

**Collaboration**

Canada has a large community of innovators in the technology and clinical space. Health care organizations recognize that no single organization can do it all, and strong relationships have formed between ministries, organizations, providers, and start-ups. There are still many
partnerships to be formed between academic, private, and public organizations that will enable information and best-practice sharing across the country. This extends down to the individual level in the form of inter-professional engagement.

A collaborative system would encompass a culture of partnerships and a multi-professional approach to the patient life cycle. It would ensure that providers have simple ways to analyze their performance against peers and general statistics, and are informed of best practices at the point of care. All clinicians would learn collaboration practices as part of their training, creating a more engaged community of health care, including patients. This would allow for the most useful and systemically impactful tools, processes, and people to have the greatest reach, ensure that the appropriate level of service is provided when and where patients need it, and increase provider job satisfaction and fulfillment.

**General Benefits and Expected Outcomes**

**Increased:**
- population health and wellness
- health promotion
- productivity
- communication
- safety
- options for care
- treatment adherence
- total number of care transactions
- lifespans
- transparency
- trust in the health system
- quality of care
- distribution of care
- aging at home
- individual sense of well-being and quality of life
- prevention of diseases and complications
- meaningful use of the system
- “appropriate” ER visits
- system responsiveness and nimbleness
- continuity of care
- evidence and evaluation (better understand what works, cheaper and faster)
- portability
- accountability
- linkages with the social determinants of health
- flow of information
- public awareness, interest, and discussion
- efficiencies

**Decreased:**
- hospitalizations
- ER visits and acute care
- wait times
- readmissions
- brick-and-mortar infrastructure and investments (e.g., hospitals)
- in-person care
The Vision for Digital Health in Canada

Moderator: Joyce Drohan

Stephen Frank  
President and Chief Executive Officer  
Canadian Life and Health Insurance Association

Fraser Ratchford  
Group Program Director, Consumer Health and Innovation  
Canada Health Infoway

Mary Lou Ackerman  
Vice-President, Innovation  
Saint Elizabeth Health Care

Claudia Krywiak  
Vice-President, Corporate Planning and Development  
Ontario Centres of Excellence

Discussions to date have focused on the promises of digital health and the value of health technology innovation in improving health care system functioning and patient empowerment for better health outcomes. However, Canada remains a “land of pilot projects” whereby systemic application of smaller-scale solutions is yet to be realized. Panelists discussed what digital health means for different stakeholders and what Canada’s vision for digital health should be.

Key Highlights:

Five promising categories for improving patient outcomes and realizing cost savings through digital health technologies are monitoring, screening, platforms to connect patients and caregivers, scheduling, and sharing and integrating data. All of them will require a high level of system integration, which will depend on the development of an open-source backbone to the system that can be built quickly and experimented on by many people. Additionally, stakeholders need to be open to risk until solutions are developed, and it must be designed so that everyone can take part. Executive champions and leaders will ultimately be required to move into true adoption, rather than from pilot to pilot.

Collaboration between health care organizations, clinicians, and solutions providers is needed to develop a better understanding of what works. Where appropriate, patients should also be considered partners in the health care system. It is important to bridge the gap in expectations among these different stakeholders. Service providers have an expectation of procurement, governments want to control costs, and patients want information to be shared effectively.

Digital health can improve patient engagement and experience, increase meaningful collaboration, and reduce costs through efficiency gains, but the data generated will only be as useful as the skills of those responsible for interpreting it. Doctors, nurses, and other stakeholders need to be trained so that they are adept with new technologies.
Roundtable Discussion and Closing Remarks

Patrick Dicerni  
Assistant Deputy Minister  
Strategic Policy and Planning Division  
Ontario Ministry of Health and Long-Term Care

Louis Thériault  
Vice-President, Industry Strategy and Public Policy  
The Conference Board of Canada

Participants discussed their key learnings from the day, and closing remarks were offered by Patrick Dicerni and Louis Thériault.

Key Highlights:
We need to develop a variety of relationships to get a variety of ideas, become change agents and master influencers, and challenge the status quo.

Again, several questions were posed to the group:

- How broad should our shared vision be, and at what level?
- What are the bold, aggressive goals and measurable targets that will provide opportunities for stakeholders to respond to?
- Which ideas do we pursue and, equally important, what should we stop doing?
- How can we support the passion, vision, and courage to push for change?

Conclusion
On the first day, the strategic foresight session uncovered some valuable takeaways regarding how health care stakeholders might prepare for digital health in the future, regardless of the amount of data sharing or the level of cyber security in the system:

- Data sharing is necessary on some level, regardless of whether it is done securely.
- For any level of sharing, we need to understand the trade-offs. Knowing what people are willing to share and what they are willing to give up will help us find the optimal balance.
- Having more data means you are exposed to more risk. We need to identify, prioritize, and balance what data are needed, and for what purpose. To do so, we must understand the costs and benefits of different types of data. The appetite for risk needs to fit the system.
- The roles of health care workers will need to be redefined. To prevent a future digital health skills gap, it will be crucial to determine what types and levels of skills will be necessary for different health care stakeholders.

On the second day, related to digital health innovation, the key takeaways from the day’s panelists were as follows:
• A national, cohesive vision that sets bold, aggressive goals with measurable targets and benchmarks is crucial to systemic digital health transformation.
• If we want a truly patient-centric system, we should co-design everything with patients. Importantly, we must provide them the opportunities, tools, and resources to empower them to bring a patient-centric perspective to health care system innovations.

Health care stakeholders must build new expertise and innovative capacity to enable the development of inventive solutions and fully realize the system-wide benefits of digital health. This requires collaboration across the whole system: governments, health care organizations, doctors, nurses, academia, and patients.