COVID-19

Virtual care is here to stay
For Canada to have a sustainable health care system, virtual care must become a permanent outcome of the COVID-19 pandemic
Rapid investments in virtual care solutions in response to the coronavirus crisis have accelerated Canada down a path that will have significant and long-lasting impacts on health care delivery in this country. Continuous investment will be required to sustain the change.

The health care industry is at an inflection point. Changing patient preferences, cost constraints, rapidly evolving care models, and technological innovations are driving disruption. Patients are increasingly empowered to be decision-makers in their own care and they’re demanding transparency, convenience, access, and personalized products and services.

The health care industry has lagged behind the transition of nearly every major consumer-facing industry to include digital channels as a default. The shift to virtual care during the COVID-19 crisis has demonstrated that the level of convenience and efficiency achieved in other industries are possible in health care. We must sustain the momentum the crisis has created and actively respond to the needs of both providers and consumers for the permanent incorporation of virtual care into our models of care.

Digitally enabled care will continue to play an evolving role in meeting citizen needs in the future, and providers are responding. In a recent Deloitte survey of health executives (taken before COVID-19), 74 percent responded that they expect significantly higher investments in digital health solutions by 2030. This transition has been accelerated by the pandemic and subsequent rise of health as a priority for Canadians, poising virtual care to become a permanent fixture and reshaping the way health care is provided across Canada.

More than just a trend: the value of virtual care:

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The value of virtual care is real: it enables high-quality access to care that ultimately enhances provider-patient interactions. Virtual care also has the capability to inform, personalize, accelerate, and augment care across the care delivery spectrum, from disease prevention to treatment to ongoing monitoring. It will enable simple collaboration and the sharing of data and insights across the complete circle of care. Taking the mystery out of care and treatment plans for the family and caregivers of patients, while maintaining privacy, becomes more effective in the virtual-care domain.
COVID-19: A catalyst for change

One of the most visible changes due to the COVID-19 pandemic has been how people access the health care system, since a balance needed to be found between offering care and the requirements for social distancing, demands for intensive care unit capacity and medical resources, and availability of appropriately skilled staff. Strategies that shift care away from hospitals toward the home and community have gained momentum. At the same time, stay-at-home guidelines have led to increased digital literacy and created an openness to new ways of receiving care. As a result, digital tools such as videoconferencing, remote monitoring, and data analysis are playing an increasing role in enabling virtual care. Examples of digital players providing fit-for-purpose health care tools include Maple, Babylon, and Thrive, while non-traditional health players such as Zoom and Microsoft (Teams) are also coming to serve the need for digital tools.

Use case: Telehealth—video calls with colleagues and patients
The uptake of telehealth solutions has been swift. To treat patients safely at home during the global crisis, many care providers responded by conducting virtual visits with both patients and colleagues. Before COVID-19, only 4 percent of primary care visits in Canada were conducted virtually (such as by phone, video, text, or app); this number has since increased to 60 percent, according to Canada Health Infoway. A key factor in this accelerated interest is that video-enabled contact has been rolled out at an accelerated pace.

Telehealth is particularly compelling with regard to mental health. Prior to the current pandemic, 58 percent of Canadians were already interested in trying online mental health tools. This number is expected to continue to increase as the impacts of COVID-19 and resulting socio-economic conditions continue to influence the health of Canadians. With employee health and wellness at the centre of future work strategies, many organizations are taking steps to provide employees access to virtual wellness and well-being services, and primarily through private sector offerings such as Medisys and Maple. With virtual care a key component of employee wellness programs, continued investment will be pivotal to remaining competitive in the increasingly remote work environment.
Remote monitoring, a component of virtual care, is enabling patients to better manage their health condition(s) without the need for standard check-ups either in their homes or in community medical clinics. Digital tools like smart patches that track vital signs have allowed patients to address changes in their condition before they become critical and require a trip to an acute care facility. Benefits from remote monitoring observed in the last 10 weeks include the early detection and testing of COVID-19 exposure through app-based surveillance mechanisms¹ and the triage of patients through virtual physician visits.

**Use case: remote patient monitoring**

Despite these successes, gaps remain between what patients want and what providers are currently offering. The next wave of virtual care solutions and services is likely to integrate personal health technologies and patient-generated data, in order to create a more holistic picture of a patient for physicians. Developers of new solutions must consider the increased cyber risks associated with remote monitoring and the need for data-sharing so as to prevent the creation of yet another siloed health-data set.

**Benefits beyond primary care: new virtual care models are helping get patients through acute-care settings faster**

Applications of virtual care are not limited to primary care settings. A large academic hospital outside Toronto is keeping people out of traditional emergency department (ED) settings by providing access to their specialist physicians through virtual care delivered into long-term care homes in the region and to patients in the community. This prevents the need for high-risk patients to be transferred to the ED, and ensures the proper flow of patients to COVID-19 testing facilities. The same telemedicine provider, Maple, operates a virtual care platform it pioneered to provide physician services to inpatients at a hospital in Prince Edward Island that’s struggling to recruit and retain physicians. This “tele-rounding” solution ensures inpatient care is available in areas where physicians are not able to be physically by the bedside, and increases access to specialized services.
Breaking down barriers

Virtual care solutions are ubiquitous in the consumer market, where devices such as the iWatch, iPhone, Fitbit, and Garmin watches have pushed the boundaries of health and technology independent of the public health system. While many Canadian health care facilities now use digital tools and technologies to support day-to-day operations, regulatory, financial, and behavioural barriers have hindered widespread acceptance of virtual care within the public health system.

The coronavirus pandemic has helped break down many of these barriers. Canada’s response during the COVID-19 crisis resulted in reduced restrictions related to the compensation for virtual care services at the provincial level and a federal government pledge of $240 million to expand online health care, thus recognizing the value virtual care can offer the health system. While this is a start, continued action is needed to make a virtual-care future accessible and sustainable.

Independent of the shift toward virtual care, data-driven clinical interventions are becoming the norm. The more data points available to analyze and predict health outcomes, the better. Virtual care naturally fits with this paradigm, as data from electronic interactions consumed in aggregate can help drive policy and develop best practices.
COVID-19: Accelerating the evolution of the health sector

Historical barriers to virtual care: how these have changed because of the pandemic

1. **Patient and provider orthodoxies:** Both health-care professionals and patients have traditionally believed that in-person consultation was required for the delivery of high-quality medical care. These orthodoxies have begun to erode with the new virtual world, in which wants overshadow needs. Rural, immobile, and immunocompromised patient populations in particular are seeing the benefits.

Demographic changes are also playing a role in the erosion of in-person care. We are seeing an increase in care providers, particularly those in the younger generations, preferring to visit patients virtually where appropriate. However, some patients and providers are turning to potentially insecure virtual solutions due to the lack of online services from public health organizations.

2. **Lack of reimbursement and/or inappropriate funding:** Fee-for-service models and compensation mechanisms with respect to insured services and coverage across boundaries have traditionally been a significant barrier to virtual care. To encourage adoption during the COVID-19 pandemic, billing mechanisms for physicians attending phone and virtual visits were introduced and endorsed. This is a step in the right direction to support payment incentives; however, it’s not yet clear if this model will be sustainable.

3. **Access to technology and network breadth/strength:** Without a robust technology infrastructure, Canada would not be able to provide acceptable nor equitable virtual care. The rapid improvements in infrastructure, hardware, software, and high-speed bandwidth both across the country and within private residences has significantly reduced the technological impediments to both providing and receiving virtual care.

4. **Cybersecurity and the safety of data:** Health care information is highly sensitive and the use, transmission, and storage of digital health information has significant privacy implications. Breaches that have occurred in video calls hosted by online applications highlight this concern. However, in continuing to adapt and evolve the virtual model, providers and developers have increased encryption, security protocols, and the development of processes patients can take to better protect themselves.

5. **Digital interoperability:** The traditional health care model creates data silos as the systems used are designed to cater to specific, often local, stakeholder groups such as patients, physicians, and health facilities. This is compounded by health care falling within the remit of provincial governments, which has served to multiply the silos of information. In order to pursue a model of virtual health care, data interoperability, while following the appropriate data security and privacy safeguards, is key. Virtual care is not constrained to geopolitical boundaries making it possible to provide efficient pan-Canadian virtual care solutions for national problems.

Growth in virtual health care can be sustained beyond the COVID-19 pandemic if Canada can continue to break down barriers and deliver:

- User-friendly solutions that maintain strong provider-client relationships
- Education and training to ensure health care professionals and patients have the right skills and tools
- Innovative payment and funding models such as fee codes along with value-based payment models to reward better outcomes
- Sufficient broadband capacity to support new digital models
- “Digital hygiene” ingrained into the behaviour of health care professionals and the entire digital health infrastructure
- Tools and processes to liberate patient data, enabling access for use in managed ways to fuel growth and innovation
Don’t miss the opportunity to connect the system

The occasional use of virtual care—outside an ongoing relationship and with no connection to an electronic health record—would undermine the long-term value it offers. Now is the time to adopt digital transformation and embrace virtual care. Public and private care providers in Canada need to be empowered and enabled to join together around common objectives of sustained investment, accepting a digital-first philosophy. As Canadians, we cannot let this opportunity go to waste. This crisis gave us the disruption we needed.

Realizing the benefits of emerging digital health technology requires the open and secure exchange of information between all health care providers and their patients. Approaches to health technology in Canada have generally been siloed, but we need to make sure everything is linked to get the most value out of virtual health solutions.
Key principles to sustaining the growth of virtual care

1. **Strategy first, technology second**: Technology for technology’s sake often fails to deliver the intended value. The future of health is not just about shifting care to a virtual setting; it’s about delivering care in the right setting. Where does it work best? Typically in episodic care (e.g., ED diversions), but novel shifts to virtual are occurring in unexpected areas—for example, where you would assume physical contact would be necessary, such as physiotherapy, or in reducing the length of post-operative stay by sending the patient home early with a virtual care provider and remote-monitoring devices. However, not all care models should be changed, particularly in the early stage of a patient-provider relationship, since building a relationship in person can help maintain continuity. The thoughtful application of virtual care will help ensure its sustainability.

2. **Apply patient- and clinician-centric design**: Value is in the eye of the beholder: patients and clinicians must define it. Health innovations have a greater chance of success when they keep patient and clinician needs in mind, and consider the requirements of people, process (workflow), and change management. Adopting user perspectives is critical to building an intuitive user design, which can improve engagement and management. Adopting user perspectives is critical to building an intuitive user design, which can improve engagement into virtual technologies. Consider building technologies collaboratively by involving clinicians and patients in the digital integration process.

3. **Invest in the long term**: Digital health must be seen as an economic driver, not as a cost. It’s estimated that more than $30 billion in benefits have been accrued from digital health solutions in Canada since 2007; however, transformative health benefits often take time to accumulate, and they require a mindset shift. To date, given the upfront investments necessary to offer virtual health solutions during COVID-19, it is likely that the health system has not fully recouped the recent expenditures yet. Do not neglect longer-term opportunities in pursuit of shorter-term objectives. Organizations need to think about benefits in a more holistic manner; they should consider understanding the operational cost/sustainment requirements of virtual care programs and developing strategies, such as collaborating with telehealth programs within other organizations, to offset upfront costs and add capacity.

4. **Consider collaboration across industries and regions**: Cooperation to create a more connected health care ecosystem of players will help to ensure success and sustainability. Developing practices learned at scale requires alliances between community service providers, technology companies, retail pharmacies, and employers. Consider public-private partnerships as a way to pool resources and use innovative care models. Integration across the health care value chain will help create a resilient system.

5. **Take an integrated approach to technology infrastructure and interoperability**: An integrative approach that ensures health care infrastructure can support a shift to virtual care for the long term will be essential. There are several overarching infrastructure considerations that health care institutions should address as they plan ahead:
   
a. **The adaptability of infrastructure space**: Health care institutions should consider other potential uses for space liberated from the shift away from in-person health care. This could include retrofitting spaces to ensure preparedness and capacity to support an influx of patients who require in-person critical care in unforeseen situations such as a pandemic, a natural disaster, or other causes of capacity constraint.

   b. **Infrastructure suitability for technological advancement**: An integrative plan that ensures the current infrastructure can support technological advancements is imperative. This may include ensuring the infrastructure can support connectivity, share services across the organization, preserve current efficacies, and enable energy-efficient systems. An understanding of barriers to infrastructure innovation and any barriers to transformation, such as the level of compatibility with existing networks, will also be crucial.

   c. **Alternative revenue-generating opportunities**: As health care institutions will face a decline in foot traffic as more people turn to virtual care, other revenue-generating opportunities for the infrastructure space should be considered (e.g., exploring strategies to recover the loss of ancillary service revenue from parking operations). This can also include expanding the continuum of care for which virtual care is not feasible.

   d. **Reassessing capital projects**: Institutions should reassess projects that were planned before COVID-19 to determine which may now be delivered alternatively. It’s important to ensure these plans align with current predictions for the future of health care to ensure no sunk costs are incurred during these uncertain times.

   e. **Financing alternatives**: Financing the infrastructure changes that may be required to support the shift toward virtual could include policy advocacy, to ensure provincial and municipal governments provide appropriate funding given the current financial constraints on the health care sector.
Shifting from health care to health

In a decade, health care as we know it today will no longer exist. There will be a fundamental shift from “health care” to “health.” And while the COVID-19 crisis may have been a catalyst for the adoption of virtual care, we still have a lot of work to do before we achieve a digitally enabled health system. The future of health envisions timely, transparent, and high-quality care delivered in the right setting. Consumers of the future are likely to benefit from tailored, personalized virtual care experiences driven by interoperability, data-sharing, and consumer health technology. The disruption we are seeing today, brought on by a global pandemic, is accelerating us toward that future.

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