

# eHealth: a cornerstone in health system sustainability

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As demand on the Canadian health care system increases, politicians, academics, and industry leaders are looking for innovative approaches to address the unsustainable increases in operating and capital costs. eHealth is often identified as a means to enable cost efficiencies and drive improved outcomes for patients and families.

## eHealth: technology enabling process change

eHealth is the use of technologies to support improved clinical and business processes in the health sector. While much focus is often on the technologies that enable eHealth solutions, the actual technology is less important than the process change enabled; change that drives improved health outcomes and productivity.

Although the primary benefit of eHealth is improved health outcomes for patients, the direct and indirect benefits of eHealth further impact providers and the greater health system. Overall, the health system should see gains in a number of aspects such as: decreased hospital readmissions due to the reduction in adverse events, reduced wait times due to better coordination and availability of information, and improved health system planning through the secondary use of data. Based on these types of efficiency gains, Canada Health Infoway has estimated that implementing and adopting the use of electronic health records, a foundational element of eHealth, will create resource gains of \$6-7 billion dollars a year<sup>1</sup>.

## eHealth: investments to date

Until now, the main focus of the major eHealth initiatives across the country has been infrastructure-related. While clinical care requires strong infrastructure, clinical benefits are not often captured in direct value estimates. The initial step of establishing infrastructure requires significant investment and impacts when the benefits of eHealth will be realized by patients, providers, and the health system. Infrastructure-related initiatives include implementing large laboratory, diagnostic imaging and/or drug registries, or putting communication structures in place to distribute information between health service providers. However, patients typically only recognize the value of eHealth when they see their doctor using a computer during their visit to immediately fax referrals, or enter the Emergency Room unconscious but have the nurse access their medication

allergies. These important patient care interactions all rely on robust infrastructure, yet the reliance is not often recognized by the care delivery team or patients.

## eHealth: realizing the benefits

There is evidence that the benefits of eHealth are being realized; however, benefits realization is dependent on the maturity of the solution and the rate of adoption among clinical teams. It takes time to effectively implement technology and necessary process and practice change. Given the eHealth adoption rates to date in Canada, the full value of investments have not been realized as the process and practice changes are still unfolding as clinicians and patients being to operate in a new patient care model.

While it has been a long journey for eHealth adoption in Canada, the future is promising. Provinces and health regions are investing in partnerships and technology that support the sharing of clinical information between organizations and physician practices, and the use of provincial laboratory, drug and diagnostic imaging storage is increasing to support local decision making and chronic disease management. As Canadians, we can look forward to continued value being realized as eHealth advances and the associated process and practice changes work their way through the health system. But we must be tolerant as it is a large, complex system with tens of thousands of clinicians and millions of patients who need to engage in the change process to realize the benefits that eHealth has to offer.

<sup>1</sup> Canada Health Infoway <https://www.infoway-inforoute.ca/lang-en/>

