



A doctor and her patient look at digital medical information on an iPad. It's part of keeping up to date in the latest medical technology. Infoway Canada photo

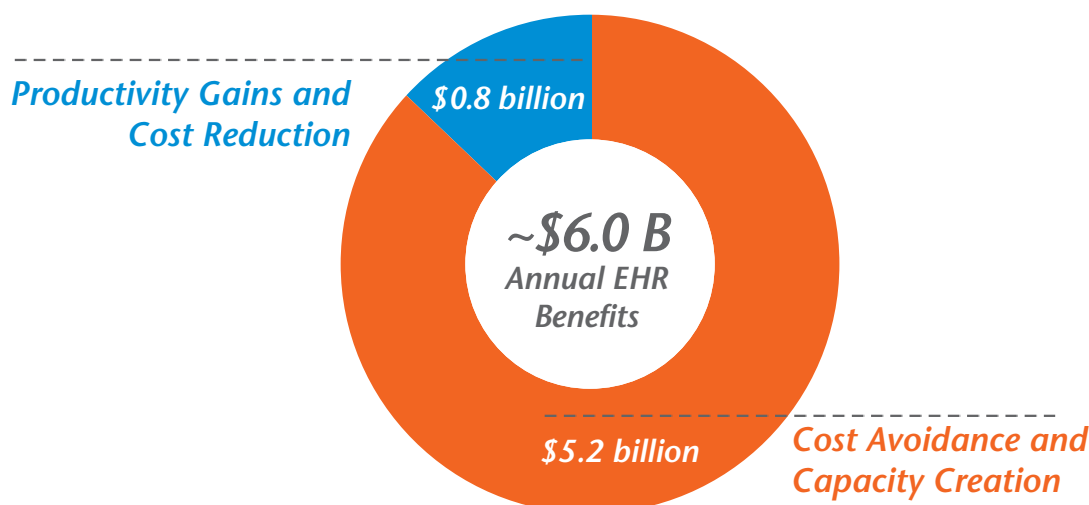
# The Next Frontier of Digital Health: Putting the Patient First

Graham Scott

*The domestic digital health industry contributes \$1.5 billion to the economy and electronic medical records are now used by 77 per cent of family physicians. Despite that progress, few digital health tools are actually in the hands of patients. Canadians should not have to wait for a “black swan” event to take full advantage of technology. By working together, Canadians can build on the foundation of the last decade and realize the full value of digital health.*

Why is healthcare one of the last remaining facets of society to take full advantage of the power of technology, particularly in patient-facing aspects of the business? Why has change been so slow and what will it take to move this \$215 billion sector that serves 35 million Canadians each and every year?

History tells us that wholesale change is often brought about by cataclysmic experiences—so-called “black swan” events that transform the very face of society and culture. The development



## ACCESS QUALITY PRODUCTIVITY

*Cost Avoidance / Capacity Benefits => reduction in medication errors and adverse drug events*

*Productivity Benefits => improvements in radiology productivity and reductions in tests and film / space costs*

of the microprocessor led to the launch of personal computing and the iPod caused massive upheaval for the music industry. Does transformative change in healthcare require a black swan event?

I suggest that we don't need to wait for a black swan event; we are on the cusp of change and building on the foundation of the last decade, a fully digital healthcare system is within our reach.

**“We’ve come a long way in a decade: 91,000 clinicians now use an electronic health record; 77 per cent of family doctors now use an electronic medical record; and according to the OECD, Canada is a world leader in telemedicine.”**

So where are we, really?

With the support of the provinces and territories we’ve come a long way in a decade: 91,000 clinicians now use an electronic health record; 77 per cent of family doctors now use an electronic medical record; and according to the OECD, Canada is a world leader in telemedicine.

At the often overlooked macroeconomic level, the domestic digital health industry generates approximately \$3.4 billion in revenues annually, and contributes an estimated \$1.5 billion to Canada’s GDP. The sector also employs an estimated 47,400 professionals, and more than 32,000 new jobs are expected to be created between now and 2020. Far from being a cost, digital health represents an investment in the productivity, efficiency and sustainability in one of the most vital sectors in our economy.

We’ve certainly had remarkable success and we’ve achieved much, but

we’re not where we want to be, so what exactly is holding us back?

**“Far from being a cost, digital health represents an investment in the productivity, efficiency and sustainability in one of the most vital sectors in our economy.”**

Universal healthcare remains a core value of Canadians, but funding is simply not keeping up with the costs, particularly when each province, territory, region, hospital, clinic and practice operates within their own silo, creating centres of excellence, but also independent islands of ‘have’ and ‘have not’ that ultimately impact patient safety. Conflicting privacy protections and policy and

legislation that haven't kept up also haven't helped.

**E**xacerbating these challenges is the chasm between clinicians, patients and vendors, each with their own priorities and expectations. And above all else, it is the patient who simply wants online access to their healthcare providers and health information in the same way they have accessed their banking information and their travel information for many years that is the most compelling impetus for change.

If we are to change, and change we must, we will be required to embrace a new way of thinking about healthcare and what it means to Canadians.

Digital health used to be about getting the technology in place: Standards, architecture, terminology and the like. And while these important aspects have not gone away, their purpose has evolved. Today, patients, their safety and their comfort are at the heart of digital health transformation.

**T**he reasons for this change are those undisputable realities that have placed unprecedented pressure on the healthcare system: Our population is aging and will need healthcare more often and closer to home. Today, the evolution away from a hospital-centric system to a decentralized network that facilitates prevention, monitoring and treatment is a reality. Coordinating and linking the information between patients and multiple points of care is impossible without digital health.

As society has evolved, so too has Canada Health Infoway. In our infancy, we invested federal government funds alongside provinces and territories to build the infrastructure to support a pan-Canadian digital health system. Today we are completing that work and embarking on the next phase of the journey: Building on the infrastructure to meet patient needs through innovative patient-facing access and convenience solu-

tions, and growing adoption of solutions and sharing of information through collaboration.

But the next phase in the evolution will not be met unless all those partners resolve to finish the job.

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Success will be achieved by focusing on patient needs; extracting the full value of data through analytics and by focusing on interoperability so healthcare providers can securely share information to protect patient safety and inform clinical decisions. And it's not just about funding but revenue generation and benefits realization so we can engineer projects to scale and spread across the country, leading to maximized efficiency and productivity.

But right now, it is not certain that this is going to happen. In fact, Infoway's project funding is now fully committed and we have not received funding for this next stage in either of the last two federal budget cycles.

We don't need to wait for the black-swan event to achieve our vision of healthier Canadians through digital health. In addition to funding, there are five commitments that have always guided our work, and that we can all use to achieve the healthcare transformation in Canada we desire:

1. Plan for the patient, with the patient.

2. Repeat, don't recreate.
3. Information should be borderless.
4. Data in, value out.
5. Privacy & safety by design, not by accident.

**B**y working together, we can build on what's already been accomplished to improve patient access and enrich clinical decision making; we will improve equity of access to healthcare across the country; and in the process, generate much needed knowledge-based jobs for Canadians.

Digital health advances made in the past decade have yielded improved patient care and health system benefits but the next stage will require funding and commitment to see this through to the end.

Let's not wait for another black swan event to see this transformation come to life. **P**

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