

Alberta Doctors' Digest

Sponsored article: Solving Canada's health care data challenge takes getting clinical data right

Health care in Canada is in crisis. There is no single reason, but in many cases, we can boil the problem down to insufficient resources. That includes people – hardworking health care professionals across all levels of care – but also another scarce resource: timely and meaningful data.

The quality of information will always influence the quality of the outcome. In the case of health care, those outcomes can often be life or death. At a minimum, inconsistent data and information breakdowns between health care providers mean we're putting more pressure on stretched resources and don't have a true picture of patient outcomes. At worst, it creates risks for patients that can lead to dire consequences, including avoidable deaths.

These are just some of the reasons the Government of Canada plans to inject billions of dollars into the health system with the goal of promoting data-sharing. Alberta has long been a leader in the health data space. We have had access to NetCare for a long time, and the provincial rollout of ConnectCare has led to significant data integration across Alberta's health system. Furthermore, Alberta is making a significant push to support patients' access to their own data through My Health Records. However, within the province, some challenges remain with data-sharing, particularly between acute care and primary care, as well as between provinces/territories where data rarely flows.

Fixing the intra-province and inter-province health data sharing problem will be foundational to improving the future of health care in Canada. Integrated national clinical data could help us make important strides in patient outcomes, reduce inequities, and improve the allocation of resources that achieve those results. With timely and complete health data, we can understand more clearly the health challenges that lie ahead and the solutions and resources required to fix them. We can learn more about how aging baby boomers will need long-term care; why specific diseases like diabetes are predominant in certain populations; or how shutdowns of emergency rooms will impact other hospitals.

Data sharing starts with consistently capturing clinical data at the point of care. Simply put, we need information about the patient, their treatment in all care settings, and the outcomes from those treatments. Every day, with each patient, clinicians make dozens of decisions along different care paths. Having consistent data about each of those decisions – shared across primary, secondary and tertiary care providers – would mean better clinical insights. When health care providers have those insights, they can improve their practice and ideally patient outcomes.

There are two specific and significant barriers to this happening. The first relates to health information exchange standards, which allow for the sharing of medical data and can help prevent situations of people not getting the care they need in time.

The second is the lack of a common system for procedural codes. Coding systems for documenting the various procedures and services delivered to patients – everything

from routine checkups to complex surgeries – are often unclear, unavailable or dated. This data can be difficult to collect, compile and analyze in a coordinated way, and outdated codes often don't reflect the current realities of care provision, including new procedures. This leads to both under-delivery and over-delivery of care.

Creating data standardization is possible. One example is the American Medical Association's [Current Procedural Terminology \(CPT®\)](#) code set. It transparently establishes a physician-led, evidence-based, uniform language for coding physician services and procedures. That consistency allows health care stakeholders in jurisdictions around the world to streamline reporting, improve accuracy, create greater operational efficiency, benchmark quality, and identify gaps in care.

We also can look abroad for examples of getting it right. Take for instance Abu Dhabi's Malaffi [Health Information Exchange \(HIE\) platform](#). It allows for a real-time exchange of patient health information between health care providers in the region. A centralized database with unified patient records means better quality of care and patient outcomes.

This interoperability will be essential to the future of Canadian health care, including preparing for emergencies. When COVID-19 emerged, Canada lacked the necessary data standards and infrastructure to share information, which limited the ability for a national response to the pandemic. Before 2020, the standard was for provinces and territories to share data with the Public Health Agency of Canada (PHAC) within two weeks. This lag meant that there was limited national ability to track new outbreaks of COVID-19, a delay in tracking the spread of new variants, and difficulties in reporting vaccine administration.

This is why a key recommendation from the Expert Advisory Group (EAG) on the Pan-Canadian Health Data Strategy is to [improve interoperability between provinces and territories](#). Since the onset of the pandemic, the group has sought to identify the root causes of Canada's splintered health data system. Its [final report](#) details recommendations to fix our system, including improving interoperability.

Now we face the hard part: implementing those recommendations. And accelerating change will have to happen at both the points of health care delivery in Alberta and at the federal level.

As we look to solve bigger-picture, longer-term health care challenges, we can't forget that it all starts with quality clinical data and data sharing that will make a huge difference to lives in Alberta and across Canada. If we can improve information exchange in day-to-day care, we'll see the benefits to individual patients, health care practitioners and, ultimately, our national health.

Editor's note:

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