

Beyond Administrative Data: A Vision for Health Information Systems for Canada

Au-delà des données administratives : vision pour les systèmes canadiens d'information sur la santé

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THE MANITOBA CENTRE FOR HEALTH POLICY HAS ACHIEVED MUCH SUCCESS over the past 20 years in building an administrative claims data repository, using that data for innovative, policy-relevant research, and developing effective knowledge translation mechanisms. Researchers have long recognized the limitations of administrative data while working creatively to minimize these limitations using linkages and cutting-edge analytical techniques. We are, however, on the verge of a new era of data use in Canada. The Canadian Institute for Health Information (CIHI), Canada Health Infoway and federal, provincial and territorial ministries of health are collaborating on an initiative to inform the planning and development of health information systems across Canada to support a full spectrum of uses of data, including health research.

Previously called “secondary use,” the utilization of clinical electronic data (including admin-

istrative data, “electronic health records” and “electronic medical records” – EHRs and EMRs) for system evaluation, planning, policy development and management has now been recognized as a critical legitimate use of that data. The significant investment in the electronic health record by the federal government (\$1.6 billion, to date) through Infoway has spurred the development of data sources across the country, with the potential for a sea of change in the information potentially available for system management, policy development and research. However, it should not be assumed that these data, intended to streamline, simplify and improve the quality of clinical services delivery, will be available and valuable for health system use.

Louis Barré, Vice-President of Strategy, Planning and Outreach for CIHI, presented the current national vision for the utilization of clinical data and the collaborative strategies underway to achieve this vision.

An early step has been the acceptance of a change in the language used when referring to data use. *Health system use* (HSU) is the use of health information for purposes beyond direct patient care, including clinical program management, health system management, population health surveillance and research, all of which lead to improved patient care and health outcomes. This new term has been endorsed by the Conference of Deputy Ministers of Health. The categories of use are outlined in Figure 1.

The technical strategy includes defining the business requirements, seizing existing investment opportunities, supporting jurisdictions in current and future efforts, developing the required standards and getting the technical architecture right. Each of these aims brings its own significant challenges and barriers when considered within the context of the complex federal–provincial/territorial relationships governing healthcare in Canada. For example, the ultimate cost of the required health information infrastructure has been estimated to be as high as five times the current level of investment!

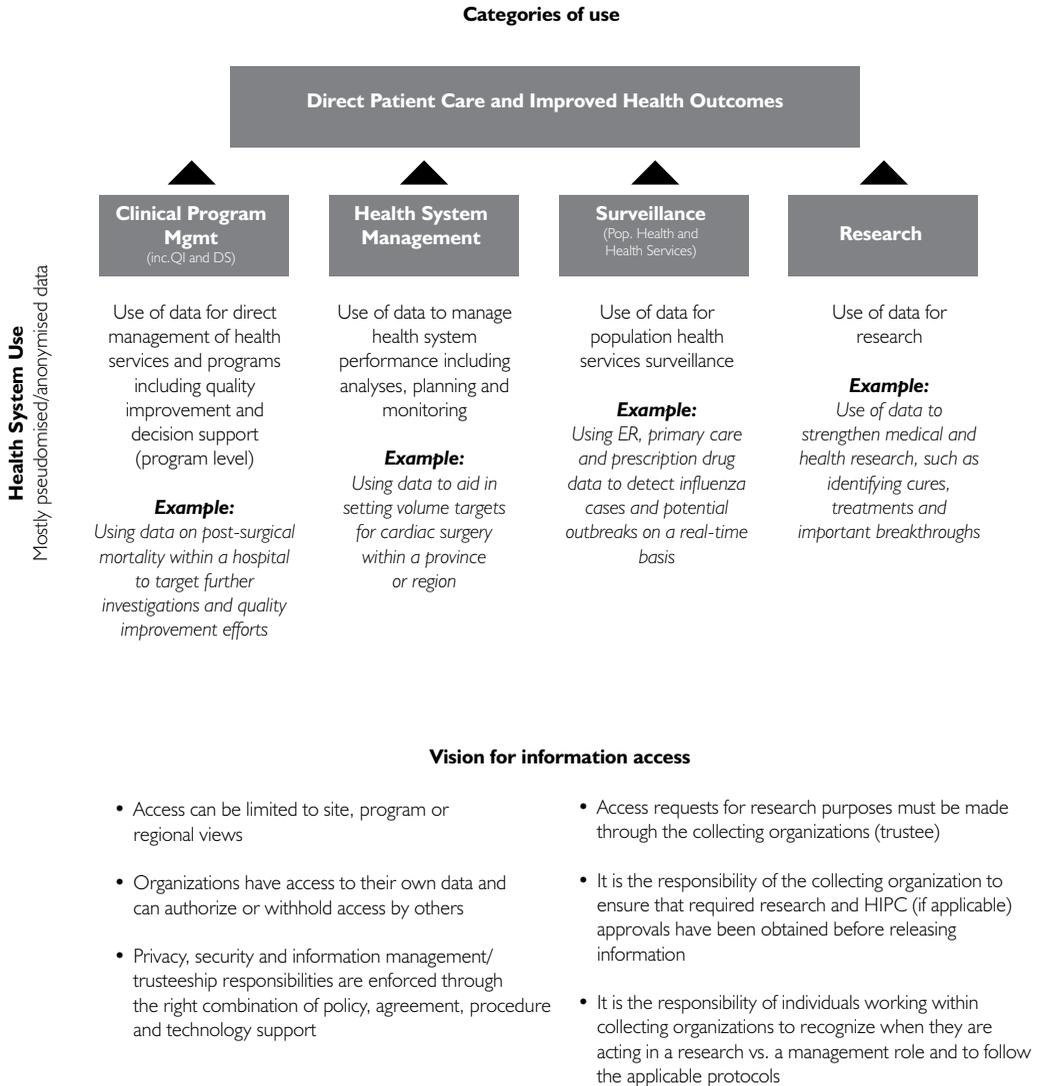
The ultimate goal of securing access to usable EHR and EMR data in an efficient and acceptable way will need to build on point-of-care systems and minimize duplication. The data and the related database software will need to be coded or structured with the ability to link, query and extract information at the record level. We will need to develop standardized concepts, data models, data definitions and minimum data sets that are acceptable across all jurisdictions, and all this needs to be done within a framework of privacy and security that garners the support of Canadians.

Tom Fogg, Director of Strategy and Planning, Manitoba eHealth, presented the Manitoba perspective. He described Manitoba eHealth’s mandate under three major aims: to integrate healthcare systems across regions and care sectors; to improve and expand healthcare services by managing information and communication technology (ICT) to achieve economies of scale provincially; and to improve the efficiency and effectiveness of ICT services.

Manitoba’s overall approach to eHealth strategy is driven by the three key goals of (1) access/client service, (2) quality and safety and (3) efficiency/sustainability of the health system. These goals are applied by examining opportunities in each of several health sectors as well as across sectors. The two cross-sector foci are coordination of care for individual patients and information integration to facilitate health system management.

Beyond Administrative Data

FIGURE 1. Categories of health system use and vision for information access



Manitoba eHealth believes that the strategy to make information valuable to health system decision-makers will also benefit the research community. Information that becomes available as new operational systems are implemented and “harvested” to support the analytical needs of decision-makers should be more comprehensive, better structured and standardized, higher in quality and more timely than much of the information used for research today. The organizations that collect this information originally and act as trustees will determine how and when it is made available for research, pursuant to Manitoba’s privacy legislation and research ethics policies. As an information manager on their behalf, Manitoba eHealth will take direction from these trustees.

As with the vision presented by Louis Barré, the Manitoba eHealth vision faces challenges in moving from the current situation to the target state. These include:

- Lack of an integrated health system management environment and toolset;
- Limited human resources capacity;
- Confusion about policies and procedures; and
- Uncertainty about the level of buy-in to the value of investment in health system management.

Despite these challenges there was a sense of optimism from the session that reflected a common national and provincial vision and recognition of the increasing amount of energy being directed to this issue.