



Maps to Inform Intersectoral Planning and Action: A Summary

Collective planning

Maps are becoming popular as research and communication tools. Showing a variety of health, social, economic and environmental data on a map provides a powerful visual image of how these factors relate and influence each other. This in turn can lead to more informed planning and decision-making on health and social issues.

People like maps and relate to them. Maps can reveal patterns in a way that tables, charts and text do not. They can provide new insight when data overlap and a pattern emerges, making it clear where efforts need to be directed. While maps do not provide scientific evidence of causal relationship and pathways, they do provide insights into how social, economic, and demographic factors co-exist with health factors.

If you are responsible for community planning in the health, social, economic or environmental fields, this document will show you how community partners can use mapping technology to contribute to the improvement of health and among population groups. Two case studies are highlighted where partners integrated their health and social data into a shared platform and used the information to influence improvements in the community.

A key component of successful mapping is to establish partnerships and collaboration among public, private and community sector organizations. Pooling data and sharing it cooperatively creates a synergy that makes all partners more productive. A shared data platform can eliminate duplication of efforts, saving staff time and resources. It can help partners understand the factors that affect health and wellbeing in a community. This knowledge can help stakeholders structure their research, planning and action accordingly.

This document is based on a report commissioned by the Canadian Council on Social Determinants of Health entitled: Maps to Inform Intersectoral Planning and Action. To obtain a copy of this report or learn more about the Council please visit www.ccsdh.ca



When the maps and data are publicly available online without charge, this approach also becomes an effective method for keeping the public and partners engaged and informed of new developments in their community.

As the case studies illustrate, data integration and mapping can produce benefits far beyond what any one partner could have achieved. Further, such collaboration can lead to partnerships in other areas to address complex intersectoral community issues such as poverty and food security.

Mapping the factors that shape health and well-being

When most people think of health, they tend to think of their personal health and the lifestyle choices they make — such as quitting smoking, eating healthy food and being physically active. Or, they think about health care, such as hospitals and clinics.

However, there are many other factors in people's lives that can help them or prevent them from making healthy choices. Someone may have to choose between food and medication because their income won't stretch far enough to cover both. Or perhaps children are not active enough because there is no safe place to play in the neighbourhood. In fact, health and well-being are influenced by a wide range of social, economic and environmental factors. They include, among other things:

- the work people do
- their level of education
- their income
- where they live
- early childhood experiences.

Tracking these factors and understanding how they interact requires multiple layers of data, collected by a variety of community partners. By sharing and integrating data, partners can identify common elements, such as the link between poverty and health, and create programs to address these issues.

Mapping allows you to capture and display data about these factors across a geographic area. Maps can show clear patterns of opportunity or vulnerability and how they relate to current infrastructure and services. For example, a map can show a social variable like a low income in a geographical area, which overlaps with a health outcome, such as the rate of diabetes.



Mapping case studies

Espace montrealais d'information sur la santé (EMIS) in Montreal, Quebec, and the CommunityView Collaboration (CVC) in Saskatoon, Saskatchewan, are two examples of how data sharing and mapping can work for a wide range of community partners. They were designed to show how the partnership resulted in cross sectoral decision-making that benefited members of the community.

EMIS and CVC are both online, interactive collaborative mapping and information infrastructures involving networks of people, organizations, data and technology. They also have in common:

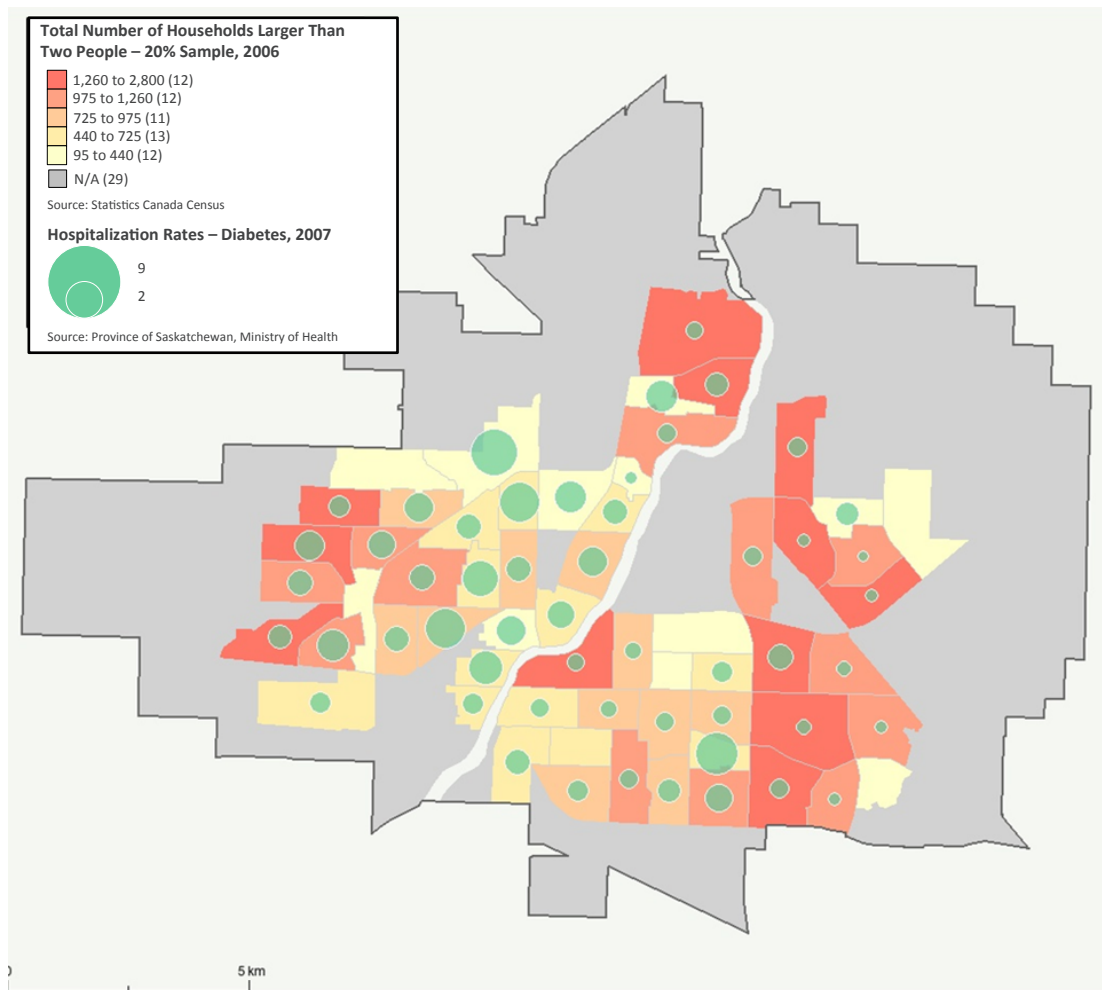
- a governance model
- data sharing protocols
- an organization that managed an in-house database
- partners who could provide support in the form of technology, space and human resources
- mapping activities focused on influencing decisions.

Although the two organizations shared similar goals, the origins of their collaboration differed. Under Quebec's unique *Public Health Act*, there is an obligation to collect and share data on population health; EMIS was created to fulfill this requirement. Since public health is part of the Ministry of Health and Social Services (MSSS), collaboration across sectors is facilitated and supported.

In Saskatoon, the development of CVC – a partnership of the City of Saskatoon, the University of Saskatchewan and Saskatoon Health Region – was motivated by the requirement to provide information for the Chief Medical Health Officer's Status Report. At the time – the mid-1990s – health care services were being de-centralized to local/regional health boards, which were expanding. The local/regional boards needed a clearer picture of the factors affecting health in various neighbourhoods to help with local decision-making, see map 1.



Map 1. Hospitalization Rates for Diabetes by Geographic Area in Saskatoon, 2007



Adapted from: *CommunityView Collaboration*. 2014-09-02

Each project involved a wide range of partners from the public and private sectors, as well as several levels of government. They also included many types and levels of data, from diverse partners such as social services, police departments, school boards and health districts. For example, the CVC project sourced data from recent census material, school enrolment, crime statistics and selected health indicators, such as the rates of communicable and chronic diseases.

In both cases, the shared data platform became a “one-stop” information service where partners shared and accessed data previously not available to them. In addition to a variety of system maps, users could create their own maps and tables on the system, save them there or export them as images or PDFs.

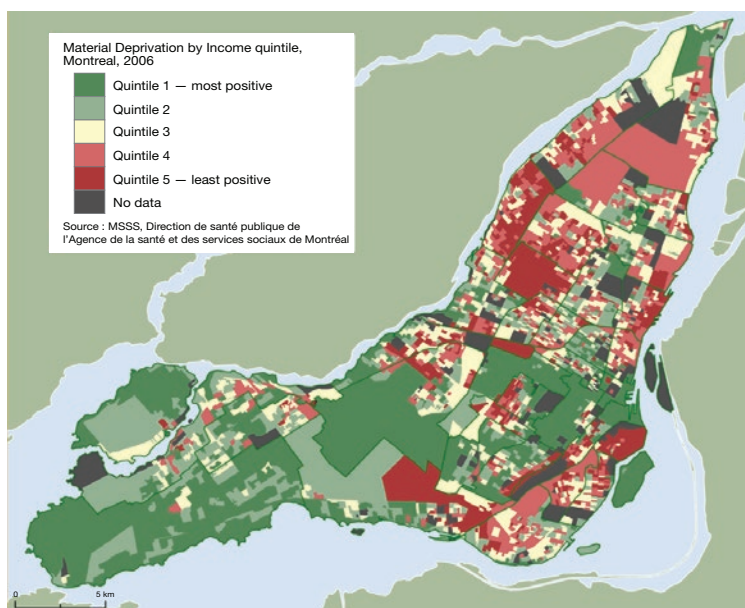


In both sites, data sharing and mapping led to evidence-based decision making and a call to action. Partners had a better understanding of the “big picture” as well as the role they could play within their own sphere of influence. They adapted their services, developed new ones, reallocated resources and took steps to fill the gaps that the maps identified.

Among other applications, the EMIS data were used to:

- provide input to studies on low income areas and trends in inequity (see map 2)
- inform policy design and budget allocations on school readiness
- contribute to studies on access to nutritious food in neighbourhoods, to develop healthy eating strategies
- study access to parks and recreation in eight Montreal wards
- identify urban heat islands (i.e. a metropolitan area that is significantly warmer than its surrounding rural areas due to human activities) where vulnerable populations reside and share that information with police and firefighters
- plan for a more equitable distribution of doctors
- create partnership zones for mental health
- plan and evaluate health service wait times
- identify risk factors tied to inequity as part of suicide prevention programming.

Map 2. Material Deprivation in Montreal, 2006



Adapted from: Atlas Santé Montréal <http://emis.santemontreal.qc.ca/outils/atlas-sante-montreal>



A critical moment in the CommunityView Collaboration (CVC) project was the realization that poverty was a common factor for all partners, as it affected multiple health and social outcomes. It impacted areas such as housing and neighbourhood revitalization, as well as improved health, school and police services. The partners' ability to mobilize action across the different sectors was a major triumph.

The CVC's success can be seen in some of the changes that resulted from the collaboration of its partners. They include:

- re-allocation of public health services to low income areas in the region
- new funding from the United Way for school programs for low income areas
- new investments from the provincial and municipal governments for low income housing and neighbourhood revitalization
- development of goals to reduce health disparities and improve Aboriginal health
- availability of information for municipal fire and building inspectors about improvements needed in rental housing
- identification of target areas in need of education and birth control services
- development of prevention programs for cardiovascular disease.

The key to the success of both projects was the involvement of a wide range of partners from schools, local universities, provincial governments, non-profit organizations, the private sector and police services. EMIS also included fire services, child care centres and a number of health and social services delivery networks. EMIS partners included:

- Agence de la santé et des services sociaux de Montréal, host (Montreal Health and Social Service Agency)
- Ministry of Health and Social Services
- City of Montreal
- police and fire services
- school boards
- Comité régional d'utilisateurs d'information sociosanitaire (Regional committee of health and social information users)
- the general public.



In addition to the founding partners in Saskatoon, other contributors included:

- Saskatoon Regional Intersectoral Committee
- Government of Saskatchewan
- Saskatoon Police Services
- United Way
- Saskatoon Public School Division
- Greater Saskatoon Catholic School Division
- ProjectLine Solutions (a software developer).

In both these case studies, the public had access to the data, although some of the data were password protected for the exclusive use of the partners. This provided an open and transparent way for the public not just to be informed, but to be involved in the decisions that were being made in their community. Decision-makers from across sectors could clearly see patterns that needed to be addressed at the local level.

Making maps work for you

A key reason for using maps in planning and policy-making is that they can demonstrate the ways in which health, social, economic and environmental factors interact to contribute to complex problems. Responding to these complex problems requires that sectors work together. Integrating data from diverse sectors on a single map or series of maps can demonstrate the potential role each sector can play to tackle an issue, paving the way to action within and across sectors.

The first step in developing the kind of integrated successful mapping profiled in the two case studies is collaboration. By sharing and integrating data, you expand the range of available information for use in research, planning and intersectoral action. It becomes a foundation for creating a “one-stop” point of access to data that reduces duplication of effort and resources across the participating agencies.

As shown in the case studies, setting up a system in which various organizations, such as school boards, health regions and social services pool their data requires an investment of time, money and effort. The system must accommodate the varying and sometimes conflicting needs of multiple users. However, the resulting infrastructure can more than compensate for the effort required to set up the system. It can reduce the costs to acquire data, and allows smaller organizations access to technology they otherwise might not be able to afford.



To work effectively, a collaborative mapping system should:

- include a wide network of partners and collaborators
- include a broad range of health, social and environmental data
- permit data to be analyzed in ways that are relevant to users
- have links to local geographies (e.g., neighbourhood information)
- allow partners to download and adapt data for their own uses.

Once established, the system can be used to make a case for new programs and services, to measure whether progress is being achieved and to keep decision-makers and the public informed of what is happening in their community.

The power of maps can help better attract and engage a wider range of partners and build support toward concrete actions in your community.

To learn more...

This document is based on a report commissioned by the Canadian Council on Social Determinants of Health (CCSDH) entitled: *Maps to Inform Intersectoral Planning and Action*.

The CCSDH is a collaborative intersectoral stakeholder group established to facilitate and leverage action on the factors that shape health through member networks and targeted, intersectoral initiatives. The CCSDH brings together organizations and experts from a wide array of sectors in Canada such as health, business, labour, social development, philanthropy, Aboriginal organizations, and research. The CCSDH also advises the Public Health Agency of Canada on matters relating to reducing health inequalities in Canada.

If you would like to receive a copy of the larger report or learn more about the CCSDH, please visit the CCSDH website at www.ccsdh.ca or contact CCSDH.Correspondence@phac-aspc.gc.ca.

