Manitoba Healthy Living/Chronic Disease Primary Prevention System Concept Paper

Developed by

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The system Framework described in this concept paper is an adaptation of the system proposed in *Thinking like a system: the way forward to prevent chronic disease in Ontario* proposed by the Ontario Chronic Disease Prevention Alliance, March 2006.

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Within Canada, we are proud of our health care system. Yet we have reason to be concerned about our prevention system. In recent years, there have been many calls for a 'prevention system' that is sufficiently resourced, effective, sustainable, and fully integrates research, evaluation and surveillance with programs and policies (1)(2). Piecemeal, fragmented action on a shoestring budget is not acceptable. Strategic

alignment of organizational priorities, investments and activities is needed to successfully prevent chronic diseases and promote healthy living.(3) Manitoba has an opportunity to demonstrate considerable leadership and innovation in this area. Indeed, substantial groundwork has already been done.

The paper provides a roadmap to immediate and effective action. A core premise of this roadmap is that to promote healthy living and to address the determinants of health necessary for chronic disease prevention requires leadership that supports collaborative action. Another premise is the need for a comprehensive approach to programs and policies. A comprehensive approach recognizes that individual behaviour is influenced by and, in turn, influences institutional, social and other contexts.(4) A mix of interventions is required to address individual behaviour as well as social and environmental conditions that influence health.(5) This comprehensive approach must acknowledge what is working well and what needs to be improved. New and renewed commitments from NGOs and government will be critical to enhancing this approach. Existing as well as new actors, structures and systems will be engaged. All will need to learn together to think and act like a system. "We are the System."

Manitoba needs a primary prevention system that enables effective and coordinated planning, delivery and continuous improvement of healthy living and chronic disease prevention at a population level. Action is underway; much more *needs* to be, and *can* be, done. For this paper, a ***'system' is a framework of players (health and non-health), processes and functions required to achieve healthy living and chronic disease prevention.*** Just as we have health care and educational systems, we now need to build a system for prevention, by organizing our current assets, enhancing them if they are under developed, and adding new components where they are missing.

The purpose of such a prevention system is to enable coherent, comprehensive, effective, efficient, evidence-informed action, while continuously "learning as we go"; As a result, interventions will be refined to achieve optimal impact with the resources available.(6) There is an urgency to address healthy living and chronic disease prevention and the response needs to be bold. Significant reductions in the social and economic burdens of chronic disease require a response that is based on a shared and evidence-informed vision, aligned commitments, a collaborative approach, and a focus on impact.

A coherent prevention system would enable:

- Strong working relationships and connections among public and private organizations working within the same and related areas or at different levels;
- Consistency in knowledge translation and exchange activities;
- Meaningful connectedness, particularly in program and policy planning.

The development and maintenance of the prevention system should be a joint enterprise involving government, health regions, non-government organizations, schools, recreation commissions, and other bodies that are stakeholders in healthy living and/or chronic disease prevention.

The prevention system should consist of six functions (the 'what') and four cross-cutting processes (the 'how') .

Figure 1

Manitoba Prevention System Framework

**Outer circle represents the four key processes needed to advance the system. The inner circle represents the key system functions that will form the prevention system.*

Figure 1 depicts the six essential functions. Each function is associated with a group of individuals or organizations who have worked over a period of time on tasks related to the respective function. The prevention system should enhance their ability to work together to achieve their shared objectives in the respective functions. The system also should enhance the working organizations to communicate across the functions so that there is an integration to achieve the purpose of the system. While the system proposed is primarily provincial, it is essential that the groups involved in the functions also link with federal level groups with responsibility for the same function especially given the strong federal role in strengthening public health capacity and infrastructure..

The six functions are as follows:

1. **Capacity Development** is the development of sustainable skills of individuals and communities, organizational structures, resources and commitment to promote healthy living and prevent chronic diseases.(7) Capacity development includes training skills and education in policy and program implementation and the use of evidence in decision-making. It includes the development of networks, communities of practice, and relationships amongst people and functions of the system. Capacity development also means the provision of environmental supports and funding. The system itself is an environmental support. Another component of capacity development is the gathering of practice based evidence and making it accessible and useable.

2. **Practice-Based Evidence** is derived from information gathered from program providers (planners/implementers) and recipients used to identify effective interventions and areas for program or practice improvement.(8) Program providers are engaged in the collection of data and in the analysis of the data which can inform practice in local and cultural contexts.(9) This evidence should demonstrate: (a) What works (results), (b) How it works (process), and (c) Under what conditions it works (capacity).(10) In practice based evidence there is a shift from seeing knowledge as a commodity that you push to beginning to work on the process of knowing which engages the users of information in the searching for it, sharing it and making sense of it.(11) The practice based evidence model is about generating evidence from and for practice using participatory processes in naturalistic, 'real' settings.

3. **Local Risk Factor Surveillance** is the tracking and monitoring of preventable risk factor behaviours (outcomes) and the implementation of initiatives (i.e. activities and immediate outputs such as interventions) in healthy living and chronic disease prevention. Surveillance helps in assessing prevalence of risk factor behaviours, establishing risk factor behaviours among various populations, monitoring trends in population health behaviours over time, and determines the need for healthy living and chronic disease prevention programs and helps prioritize the allocation of resources. It can guide the planning and evaluation of healthy living and chronic disease prevention programs and policies. Surveillance conducted over regular time periods can serve as an important feedback source of risk factor behaviours monitored in a real time base. The feedback process can assist program planners in tracking the effects of interventions and policies and to make adjustments as needed.

4. **Monitoring and Evaluation:** Monitoring is the type of evaluation performed while the program or policy is being implemented with the aim of improving design and function while in action.(12) Outcome evaluation involves studies that look at the changes from a program or policy (changes in behaviour, health status, income, benefits distribution, cost effectiveness, etc.) with the aim of informing the design of future modifications and projects.(12) Bamberger (12) identifies ways that monitoring and evaluation systems can be effective: :
    - Provide constant feedback on the way a program or policy is achieving its goals
    - Identify potential problems in the early stages of program and policy implementation in order to propose solutions
    - Monitor the accessibility of the program or policy to all sectors of the target population
    - Monitor the efficiency with which the different components of the program or policy are being implemented and to suggest improvements
    - Evaluate the extent to which the program or policy is able to achieve its objectives
    - Provide guidelines for the planning of future programs and policies
    - Improve program and policy design
    - Show need for mid-course corrections
    - Incorporate views of stakeholders as full participants and owners of the monitoring and evaluation process and results

    Monitoring and evaluation are crucial to getting evidence out of practice in naturalistic 'real' settings. This requires the use of a wide range of methods (qualitative, quantitative and mixed) that have been developed by evaluators to study practice and encourage the use of findings.

5. **Policy and Program Implementation** occurs in various settings such as workplaces, schools, communities etc. and at various levels (provincial, regional, and local), involving health and non-

health sectors and organizations to support behavioural change and healthy environments. Policies and programs should create environments where healthy choices are easy to make.

6. **Research:** Research plays a significant role in the support of the other five functions. It is crucial that this research be reflective of population level healthy living and prevention. The research often is multi-sectoral in approach and may have to be conducted over a long period of time to determine effect. Further, the research must capture results, process and capacity.
   Green (13) describes practice-based research as research that would produce evidence that more accurately and representatively reflects the "program-context" interactions and circumstances in which the results of the research are expected to be applied. The Canadian Institute of Health Research (14) states that there is need to enhance the evidence base on what works in what settings to improve the health of Canadians. Multiple social, cultural, economic, and/or environmental factors can be in play within and around the initiation, change, adaptation, adoption or ending of a program, event or policy. Population health intervention research seeks to take these factors into account; it involves the use of scientific methods to produce knowledge about policy and program interventions that operate within or outside of the health sector and have the potential to impact health at a population level. It is important to have linkages and knowledge exchange with Canadian researchers in prevention. Research, when well planned with policy makers and practitioners can actually facilitate action and learning.

In addition to the six functions, there are four processes essential to the development and implementation of an effective and coordinated prevention system. These four processes are involved in all six functions and all levels (local, regional, provincial and federal):

1. **Planning and Coordination:** Activities are planned and coordinated to reduce inefficiencies and increase effectiveness.

2. **Knowledge Exchange:** Encompasses a broad range of activities aimed at encouraging researchers, decision-makers, practitioners and community members to work together, creating forums for sharing information, establishing research dissemination processes and encouraging the development and use of practice-based research and evidence.

3. **Advocacy:** Activities that work toward ensuring there are adequate resources, training, programs and policies for healthy living and chronic disease prevention.

4. **Sufficient and Sustainable Funding:** A key resource for system viability and effectiveness.

Table 1 summarizes the system functions, processes and characteristics described above

Table 1: System Functions, Processes and Characteristics (15)

System Functions	System Processes	System Characteristics
• Capacity development • Practice-based evidence • Local risk factor surveillance • Monitoring and Evaluation • Policy and program implementation • Research	• Planning and coordination • Knowledge exchange • Advocacy • Sufficient and sustainable funding	• Mostly a provincial level focus • Support for strong community-level/led interventions • Linked to federal activity to reciprocally compliment federal/local strategies

Manitoba Assets: Connecting the Functions

Important to any Prevention System is the identification of individuals and organizations that would be crucial participants in each of the six functions. These participants have the potential to address the work of the respective function. The following are organizations that might collaborate in the identification of organizations in and outside Manitoba and convening meetings to establish a "community of practice" for their respective functions. These Communities of Practice could ensure the work of their respective functions.

Local Risk Factor Surveillance:
CancerCare Manitoba
Interlake Regional Health Authority
Heart and Stroke Foundation of Manitoba
Centre for Behavioural Research and Program Evaluation. University of Waterloo

Research:
Heart and Stroke Foundation of Manitoba
Canadian Cancer Society, Manitoba Division
Centre for Behavioural Research and Program Evaluation, University of Waterloo
St Boniface General Hospital Research Centre,
University of Manitoba

Practice-based Evidence:
Canadian Cancer Society, Manitoba Division Knowledge Exchange Network
Manitoba Healthy Living Resource Clearinghouse

Capacity Development:
Partners in Planning for Healthy Living
Manitoba Healthy Living Resource Clearinghouse
Manitoba Chronic Disease Unit
Canadian Cancer Society, Manitoba Division Knowledge Exchange Network

Policy and Program Implementation:
Partners in Planning for Healthy Living
Manitoba Health Chronic Diseases Unit
Regional Health Authorities

Evaluation:
St Boniface General Hospital Research Centre
Centre for Behavioural Research and Program Evaluation, University of Waterloo
Canadian Cancer Society, Manitoba Division
Heart and Stroke Foundation of Manitoba

Overall Coordination and Oversight of the Prevention System:
Leadership from a defined group will be necessary for the Prevention System. This leadership will guide the system processes and expedite inter element communication to ensure that the system integrates prevention research, evaluation, practice-based evidence into programs and policies. In the beginning, this group might include:
Partners in Planning for Healthy Living *(Regional Health Authority Participation)*
Alliance for the Prevention of Chronic Disease
Heart and Stroke Foundation of Manitoba
Canadian Cancer Society, Manitoba Division
Manitoba Health
Other Organizations in Manitoba that are part of National Strategies *(Diabetes, Lung, Stroke)*
Non-Health Sector Participants

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