

The Ontario Chronic Disease Prevention Alliance

Thinking like a system:

The way forward to prevent
chronic disease in Ontario

Executive Summary

The Ontario Chronic Disease Prevention Alliance (OCDPA) is a collaboration of non-governmental organizations (NGOs) dedicated to improving the health of Ontarians. This report is our call to action and is the result of an extensive consultation and deliberative process.

The social, economic and personal toll of chronic diseases are huge and as the population ages these costs are increasing. Although Ontario has a number of important and valuable population health assets, coordination and integration is needed to optimize their effectiveness. The OCDPA envisions a province-wide system that enables effective coordinated planning, delivery and continuous improvement of health promotion and chronic disease prevention interventions at a population level. Such a system would address behavioural risk factors and the underlying determinants of health.

The OCDPA is proposing a system consisting of six elements – the “what” of chronic disease prevention, which are associated with specific communities of practice. These six elements are:

- **Capacity Development** – human or personnel development and environmental supports required by individuals, organizations or communities to prevent chronic disease
- **Best Practices Identification** – the identification and utilization of practices and activities that are consistent with health promotion values and theories and supported by the best available evidence
- **Research** – new knowledge generation
- **Surveillance and Monitoring** – tracking and monitoring the incidence and prevalence of chronic disease and associated risk factors, social conditions, behaviour and implementation of interventions, which in turn supports planning and evaluation
- **Evaluation** – program and policy evaluation that makes it possible to identify effective interventions and components of success
- **Policy and Program Implementation** – implementation of programs and policies that support behavioural change and healthy social conditions and environments

The OCDPA has identified three processes - the “how”, which are essential to the system and cross-cut all six of the system elements. They are:

- **Planning and Coordination** – integrated planning and coordination of activities to reduce inefficiencies and increase effectiveness
- **Knowledge Exchange** – a broad range of activities required to encourage researchers and decision-makers to work together to create and share information, establish research dissemination processes, and support the use of research-based evidence
- **Advocacy** – to ensure adequate resources, programs and policies for chronic disease prevention locally, provincially and nationally

The system we envision would be designed primarily at the provincial level. However, it would focus on supporting strong community-level interventions and would be linked to activities at the federal level, thus leveraging federal infrastructure. We envision a future in which a comprehensive, coherent system integrated across these three levels would enable Ontario communities to pinpoint the highest impact intervention opportunities and best approaches; access adequate resources; undertake evidence-informed action; and have data monitoring and surveillance systems that allow them to continuously guide, evaluate, and refine knowledge and practice.

The integrated prevention system being proposed by the OCDPA is complementary to *Healthy Ontarians, Healthy Ontario* (Ministry of Health Promotion) and the *Chronic Disease Prevention and Management Framework* (Ministry of Health and Long-Term Care). It also benefits from initiatives in other jurisdictions, such as The Alliance for the Prevention of Chronic Disease in Manitoba, the Chronic Disease Prevention Alliance of Canada, the Pan-Canadian Healthy Living Strategy, and the Strategy for Healthy Living and Chronic Disease being developed by the Public Health Agency of Canada.

The OCDPA proposes to proceed by applying best available knowledge about system development with a “Plan, Do, Check, Act” cycle. Four priorities have been established, in which the OCDPA would undertake knowledge exchange (knowledge brokering), planning and coordination, and advocacy. The four priorities are:

- 1) Supporting and leveraging the Smoke-Free Ontario strategy by applying the proposed chronic disease prevention system;
- 2) Calling upon its members and partners to quickly ramp up action on addressing healthy and active living;
- 3) Planning and coordinating inter-risk factor knowledge transfer and common messages and communications; and
- 4) Working with local partners and Alliance members to broker improved coordination or integration of local coalitions and other resources addressing chronic disease prevention (e.g., OHHP - Taking Action for

Healthy Living, tobacco, cancer and healthy community coalitions, and community-based staff of provincial and national NGOs).

With the release of this report, the OCDPA will ask its members to adopt the system and to start the process of working in new ways, both as individual organizations and as Alliance participants. It will work with local partners and Alliance members to broker improved coordination and integration of local coalitions and other resource addressing chronic disease prevention, including inter-risk factor knowledge exchange and common messaging. We are also asking the Ministries of Health Promotion and of Health and Long-Term Care to demonstrate recognition of the system. Next steps by the OCDPA to further the proposal for a strengthened chronic disease system include: dissemination of this paper; meeting with NGOs, system element groups, and government representatives; and, through the convening of stakeholders, developing pilot projects and a work plan.

Adopting this system approach involves a huge leap forward in collaboration, communications, synergies, learnings and coordination. It will be a challenge for all of the participants, an unprecedented culture change. Given the tide of chronic disease our province is facing, it is an essential initiative. There is no time to delay. It is time to act.

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1. Introduction & Purpose

This paper is a call to action. It results from extensive consultation, reflection and deliberations on how best to capture and communicate what is required to effectively prevent chronic disease in Ontario. It represents nearly nine months of intensive and thoughtful study, including introspection by the Ontario Chronic Disease Prevention Alliance (OCDPA) members and partners, an external review, and recommendations by experts in the field. The intent of the approach is to create an integrated system to support relationships and enable Ontario to effectively and efficiently harness and connect its chronic disease prevention interventions and resources.

With the creation of a Ministry of Health Promotion and Local Health Integration Networks (LHINs) and primary care and public health reform, Ontario is creating health care assets that are the best in the world (see Appendix 1). However, to optimize chronic disease prevention, these assets must be coordinated and integrated. The OCDPA was formed by major organizations with mandates to be a voice for coordinated and integrated action to prevent chronic disease.

By issuing this report, the Alliance is calling upon its own members, the Ontario Government, and local, national and federal colleagues to step forward and take up the challenge of working in a new and more integrated manner. Our goal is to create an integrated chronic disease prevention system. By “system” we mean a framework of processes and procedures that will enable us to fulfill the tasks required to achieve our objectives – including that of improving the health of Ontarians. In its simplest terms, we envision a system that enables Ontario to “Plan, Do, Check, Act.”¹

a) Context

The social, economic and personal costs of chronic disease are huge and are increasing as the population ages. Almost two-thirds of Ontarians over the age of 45 have a chronic disease, and of those, about 55% suffer from two or more. The costs of chronic disease are estimated at 55% of the total and indirect health costs.

It is well known that the majority of chronic diseases are preventable or at least “postpone-able.” It is urgent that we, in Ontario, along with other jurisdictions, change our actions and investments to prevent chronic disease. It has been estimated that addressing the behavioural and social conditions underlying risk factors such as nutrition, activity, stress and smoking could reduce the incidence of type 2 diabetes and coronary heart disease by approximately 90% and 80%

¹ “Plan, Do, Check, Act” is an approach that has also been adapted by the Ontario Health Quality Council.

respectively.² Underlying social condition and psychosocial factors (e.g., income, literacy, social support networks and exclusion) significantly contribute to the incidence of chronic diseases and disease outcomes.³

There is good evidence that chronic disease prevention can be cost efficient. For instance, it has been calculated that effective prevention and management of diabetes, asthma, congestive heart failure and depression would avoid hospital costs of \$200 - \$350 million annually⁴. Yet the current Ontario system is primarily designed to treat and cure acute illness, rather than prevent or manage chronic diseases. Although there are a number of prevention strategies, programs and initiatives, they tend to be fragmented and, compared to the disability, mortality and costs related to chronic disease, significantly under funded.

Opportunities for improving chronic disease prevention exist at both the provincial and federal level. For instance, Ontario recently created a Ministry of Health Promotion, with four priorities (smoke free Ontario; healthy and active living; injury prevention; and mental health and addictions). Between the Ministry of Health Promotion and the Ministry of Health and Long-Term Care, major provincial strategies are already in place to address tobacco, stroke, diabetes, cancer and osteoporosis. Ontario has also adopted *Operation Health Protection*, a multi-faceted plan for the renewal of public health that includes the establishment of the Ontario Agency for Health Protection and Promotion. The provincial government is strongly committed to regionalizing health systems and strengthening primary care and family medicine (e.g., the development of Local Health Integration Networks [LHINs] and family practice teams). In the near future, the provincial government will be releasing an Ontario Chronic Disease Prevention and Management Framework.

At the federal level, a number of parallel initiatives are underway. These include the Public Health Agency of Canada, the Pan-Canadian Healthy Living Strategy, the Pan-Canadian Public Health Network, and the six emerging National Collaborating Centres.⁵

² The World Health Report 2002 -- Reducing Risks, Promoting Healthy Life.

³ Cited in Haydon, E, Roerecke, M, Giesbrecht, N, Rehm, J & Kobus-Matthews, M. *Chronic Disease in Ontario & Canada: Determinants, Risk Factors & Prevention Priorities*. November 2005, page 16.

⁴ MOHLTC, presentation to Ontario Chronic Disease Prevention Alliance, 2005.

⁵ The six centres are:

- The National Collaborating Centre for Determinants of Health (Atlantic Canada);
- The National Collaborating Centre for Public Policy and Risk Assessment (Quebec);
- The National Collaborating Centre for Infrastructure, Info-Structure and New Tools Development (Ontario);
- The National Collaborating Centre for Infectious Diseases (Prairies);
- The National Collaborating Centre for Environmental Health (British Columbia); and
- The National Collaborating Centre for Aboriginal Health (British Columbia).

b) Development Process

The system proposed in this report is the result of comprehensive work by the OCDPA. Formed in 2003, the OCDPA is a collaboration of non-governmental organizations (NGOs) dedicated to improving the health of Ontarians (see Appendix 2). The objective of the OCDPA is to promote healthy living and to address the determinants of health necessary for chronic disease prevention through leadership that supports collaborative action.

The OCDPA recognizes the important roles of different sectors, and that their efforts must be aligned to have a population impact on chronic disease. The OCDPA member NGOs are uniquely positioned to facilitate planning and coordinating for system development and in doing so, will increase the efficiency and effectiveness of the Ontario response to prevent chronic disease.

In the fall of 2005, the Alliance undertook consultations to develop a strategy to integrate chronic disease prevention and health promotion. A record of the deliberations undertaken during this process (think tank summaries, milestones, literature reviews and other key documents) is provided in the appendices.

Feedback during the consultations indicated that there is a need for a new way of working together. “Muddling through” using 20th century systems and approaches is inadequate to successfully address 21st century challenges. This paper is the call to action for this “new way.” It is provisional and organic, intended to evolve with our partners as our knowledge and experience grow. At the same time, it represents a roadmap to immediate and effective action.

c) Vision, Purpose, and Audience

System Vision:

The OCDPA envisions a system that enables effective coordinated planning, delivery and continuous improvement of health promotion and chronic disease prevention interventions at a population level.

Purpose:

The purpose of this paper is to describe an integrated system, and provide a frame of reference from which organizations can begin to align and synergize their individual strengths and skills. Using this provisional system plan, the OCDPA will continue to engage others in the call to action and to provide a pivotal coordination function.

Audience

This paper was developed with the desire to generate interaction and support among OCDPA members, the Ontario Ministries of Health Promotion and of Health and Long-Term Care, and local, national and federal colleagues.

2. System Plan: Prevention of Chronic Disease in Ontario

Given the urgency of the situation, the appropriate response must be bold. To result in significant reductions in the social and economic burdens of chronic disease, the response required must stress a shared and evidence-informed vision, aligned commitments, a collaborative approach, and a focus on impact.

This response must support a comprehensive approach to programs and policies. A comprehensive approach acknowledges that individual behaviour is influenced by and, in turn, influences institutional, social, and other contexts.⁶ Therefore, an appropriate mix of interventions is required to address individual behaviours as well as social and environmental conditions that influence health.⁷ Furthermore, this response must both acknowledge what is working well and be courageous to act on what must be improved. It must indicate where renewed or new commitments from government and NGOs are critical to an enhanced response. In particular, it must engage existing actors, structures and systems. Piecemeal, fragmented action is unacceptable. We must learn together to think and act as a system. For success, we must make real the declaration, “*We are the system*”.

a) The Development of a Chronic Disease Prevention System Plan

Substantial investment is being made in public health infrastructure at national and provincial levels in Canada as illustrated by the Naylor report,⁸ Ontario’s Public Health Capacity Review,⁹ and the development of the Ontario Agency for

⁶ Green, L.W., Richard, L., & Potvin, L. Ecological foundations of health promotion. *American Journal of Health Promotion*, 1996;10: 270-281

⁷ Edwards, N, Mill JE, Kothari, A. Multiple Intervention Research Programs in Community Health. *Canadian Journal of Nursing Research*. 2004; 36(1), 40-54.

⁸ Naylor D. National Advisory Committee on SARS and Public Health, *Learning from SARS: renewal of public health in Canada: a report of the National Advisory Committee on SARS and Public Health*. [Ottawa]: Health Canada; 2003. [online]. Accessed September 7, 2005 from: <http://www.phac-aspc.gc.ca/publicat/sars-sras/naylor/>.

⁹ Revitalizing Ontario’s Public Health Capacity: The Final Report of the Capacity Review Committee. May 2006.
http://www.health.gov.on.ca/english/public/pub/ministry_reports/capacity_review06/capacity_review06.html

Health Protection and Promotion.¹⁰ The Alliance joins others in calling for an integrated chronic disease prevention system.¹¹ Such a system would require integration of plans and investment involving government (federal, provincial, municipal) and NGO (national and provincial) sectors.

A systematic approach would overcome some of the weaknesses of the current, unorganized state of chronic disease prevention in Ontario. Some of these weaknesses are:

- Inadequate or ineffective working relationships among public and private organizations working within the same and related areas or at different levels;
- Inconsistency in knowledge translation and exchange activities;
- Multiple specialty planning bodies; and
- Poor connectedness, particularly in program and policy planning.

The OCDPA proposes that the development of a prevention system be the goal of a joint enterprise involving government and Alliance members. Success in reducing rates of chronic disease is contingent on deliberately building a system. The aim of the 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 resources available.¹²

The system would consist of six elements (the “what”) and three cross-cutting processes (the “how”). Some of the elements of the system are in place, and can be built upon with existing assets, such as Ontario’s extensive public health resources, community coalitions, NGOs and provincial strategies. Investments already planned can be used to link these assets into a high-powered system. This system would also be linked to the plans being developed at the federal level by the Public Health Agency of Canada and the Chronic Disease Prevention Alliance of Canada to harmonize both roles and investment, and to create coherence. The resulting system would support harmonized, evidence-informed planning at national, provincial and community levels.

We envision a future in which a comprehensive, coherent system integrated across national, provincial and local levels enables communities to:

- pinpoint the highest impact intervention opportunities;
- identify best intervention approaches;

¹⁰ From Vision to Action: A Plan for the Ontario Agency for Health Protection and Promotion. Final Report of the Agency Implementation Task Force. March 2006.

http://www.health.gov.on.ca/english/public/pub/ministry_reports/agency_06/agency.html

¹¹ Chronic Disease Prevention Alliance of Canada. *Making It Work: Integration in Action*. Final Report, February 28, 2006. <http://www.cdpa.ca/>

¹² Green LW. Public Health Asks of Systems Science: To Advance Our Evidence-Based Practice, Can You Help Us Get More Practice-based Evidence? *AJPH* 2006; 96(3):406-9

- access intervention resources;
- undertake evidence-informed action that improves the health of citizens at a population level and integrate practice-based learning into the development of new knowledge; and
- use local data collection and feedback systems to continuously guide, evaluate, refine, and learn from their work.

Table 1. System Elements, Processes and Characteristics

System Elements	System Processes	System Characteristics
<ul style="list-style-type: none"> • Capacity development • Best practices Identification • Research • Surveillance/monitoring • Evaluation • Policy and program implementation 	<ul style="list-style-type: none"> • Planning and coordination • Knowledge exchange • Advocacy 	<ul style="list-style-type: none"> • Designed primarily at the provincial level • Focused on supporting strong community-level interventions • Linked to federal work to leverage federal infrastructure

Figure 1



b) **System Elements**

As summarized above, the system the OCDPA is proposing has six essential elements for integrated, effective chronic disease prevention. Each element is associated with a community of practice, defined as “a group of people who have worked together over a period of time, whether performing the same job, collaborating on a shared task, or working together on a product.”¹³ Communities of practice may consist of health professionals, other professions, volunteers, or a combination of different types of people.

The point of the strategy is to enhance the ability of the elements and the communities of practice they represent to work together to achieve their shared objective – improving the health of Ontarians.

The six elements essential to the OCDPA strategy and to chronic disease prevention are as follows. The OCDPA believes that leadership, coordination and resources must be provided so organizations, groups and clusters can undertake:

1. **Capacity Development:** For this strategy, capacity development is defined as the practice specialty that aims to enhance the abilities of individuals, organizations or communities to prevent chronic disease incidence and progression. In many respects, capacity development concerns human development (e.g., training, skills, and education) and environmental supports (e.g., building partnerships and opportunities for action).¹⁴
2. **Best Practices Identification:** Best practices in health promotion are “those sets of processes and activities that are consistent with health promotion values/goals/ethics, theories/beliefs, evidence, and understanding of the environment and that are most likely to achieve health promotion goals in a given situation.”¹⁵
3. **Research:** the development of new knowledge
4. **Surveillance and Monitoring:** tracking and monitoring the incidence and prevalence of chronic disease and associated risk factors, social

¹³ The Deerfield Group, 2003

¹⁴ Definition drawn from that utilized by CDPAC (www.cdpa.ca), that used by OPC, and that in: McLean S, Feather J, Butler Jones D. *Building Health Promotion Capacity. Action for Learning, Learning from Action*. UBC Press, 2005

¹⁵ Kahan B., Goodstadt, M. The Interactive Domain Model of Best Practices in Health Promotion: Developing and Implementing a Best Practices Approach to Health Promotion. *Health Promotion Practice* 2001; 2(1): 43-67.

conditions, behaviour and implementation of interventions, which in turn supports planning and evaluation.

5. **Evaluation:** program evaluation that enables us to identify which programs are effective and which ones are not, as well as the components essentials for success
6. **Policy and Program Implementation:** implementation of programs and policies at various levels and by different bodies that support behavioural change and healthy environments

Case Study: Eat Smart! Ontario's Health Restaurant Program

Eat Smart! provides a living example of the components of the OCDPA's proposed system and why such a system is necessary. The components of Eat Smart! are:

Capacity Development: OPHA's Nutrition Resource Centre works with public health units (PHU), the Heart and Stroke Foundation (HSF) and the Canadian Cancer Society (CCS) to create a supportive environment for healthy eating, tobacco free environment and safe and healthy food.

Best Practices: The intervention was designed in 1996/98 based on best practices in health promotion and the literature continues to be studied to keep it up to date.

Research: Several peer reviewed articles on aspects of development of Eat Smart! have been published.

Surveillance/Monitoring: Some monitoring of implementation is undertaken by the Nutrition Resource Centre (NRC) at OPHA. However, no systematic surveillance has occurred except for those PHUs participating in the Rapid Risk Factor Surveillance System.

Evaluation: During its development, extensive formative evaluation was undertaken. However, outcome evaluation is required.

Program and Policy Implementation: Eat Smart! has been implemented in 31 of the 37 PHUs in Ontario. However, it is estimated that only 4% of eligible restaurants participate.

To fulfill these six elements, Eat Smart! must plan and coordinate the activities of participants, facilitate knowledge exchange with the public health community, and advocate with government and partners for sufficient resources at both the local and provincial level.

While several members of the OCDPA have an important role in this program, they have not been engaged to the degree required to ensure that this program reaches its full potential. For example, if fully engaged, OCDPA members might have been able to step up to the plate and advocate for adequate resources to ensure that PHUs had the capacity to fully implement the program, that knowledge exchange was facilitated that there is adequate provincial support to maximize the efficiency of the program, and that valuable evaluation, research and surveillance/monitoring was undertaken.

c) System Processes

In addition to six elements, the OCDPA has identified three processes that are essential to the development and implementation of an effective, coordinated chronic disease prevention system. These processes are involved in all six elements and at all levels (local, provincial and federal).

- 1. Planning and Coordination:** Integrated planning and coordination of member activities can reduce inefficiencies and increase effectiveness
- 2. Knowledge Exchange:** Knowledge transfer and exchange encompasses a broad range of activities aimed at encouraging researchers, decision-makers and practitioners to work together, creating forums for sharing information, establishing research dissemination processes, and encouraging the use of research- and practice-based evidence. Key to this process is the development and support of knowledge brokers. According to national consultation, much of the knowledge brokering in Canada is an unrecognized and largely unplanned activity.¹⁶ The knowledge exchange system developed by the OCDPA (detailed in its Knowledge Exchange Position Paper)¹⁷ will help identify priorities for improvement and successful strategies and initiatives.¹⁸
- 3. Advocacy:** Advocacy activities work to ensure there are adequate resources, training, programs and policies for chronic disease prevention.

d) Key Actions and Players

Currently, there is no process to provide planning and coordination or advocacy across all bodies and elements. Knowledge exchange is provided by a number of organizations but mostly at different levels. Knowledge exchange is provided by the Centre for Addiction and Mental Health (CAMH; local and/or regional, as well as provincial), Heart and Stroke Foundation of Ontario (HSFO), Cancer Care Ontario (CCO), Centre for Behavioural Research and Program Education (CBRPE; provincial and national), Ontario Public Health Association (OPHA), Ontario Prevention Clearinghouse (OPC), and members of the Ontario Health Promotion Resource Centre (OPHR), such as the Heart Health Resource Centre (HHRC), Nutrition Research Centre (NRC) and FOCUS Community program.

¹⁶ The theory and practice of knowledge brokering in Canada's health system. Ottawa, ON: Canadian Health Services Research Foundation: December 2003.

¹⁷ Knowledge Exchange in Chronic Disease Prevention, Health Promotion. Proposed Roles of the Ontario Chronic Disease Prevention Alliance: A Facilitator of Knowledge Exchange. Submitted to OCDPA Core Members. Submitted by the Knowledge Exchange Working Group of the Alliance. May 2006

¹⁸ Chan BTB. Finding the right balance between evidence for judgment and evidence for quality improvement: Healthcare Management Forum : Spring 2006

In Manitoba, where a similar systems approach to chronic disease prevention has been developed, two key indicators for success have been identified. First, all participating organizations must share a common vision or template for what the system will be and do. They must be able to see themselves as part of the strategy. Second, and equally important, each organization must maintain its own unique identity and visibility. This enables the system to continue to benefit from individual, meaningful contributions of members.¹⁹

e) *Relationship to Other Initiatives*

The integrated prevention system being proposed by OCDPA (Figure 1) is complementary to two key provincial strategies: *Healthy Ontarians, Healthy Ontario* and the *Chronic Disease Prevention and Management Framework*. There are also opportunities for learnings and collaboration with similar initiatives in other jurisdictions.

Healthy Ontarians, Healthy Ontario

The Ministry of Health Promotion's new Strategic Framework (Appendix 3) aims to contribute to the health of Ontarians and a healthy Ontario by emphasizing:

- four priorities:
 - Smoke-Free Ontario;
 - healthy and active living;
 - injury prevention; and
 - mental health and addictions.
- four approaches:
 - promoting active living;
 - engaging partners;
 - influencing social factors; and
 - improving health of people most at risk.
- three principles:
 - empowerment;
 - engagement; and
 - education.

Integration across and between priorities, approaches and principles will be necessary if the Strategic Framework is to be successful.

¹⁹ Dexter Harvey, personal communication, March 2006.

Chronic Disease Prevention and Management Framework

The Ontario Chronic Disease Prevention and Management Framework of the Ministry of Health and Long-Term Care (Appendix 4) has been designed to help Ontario shift from a predominant focus upon acute care, to systems that seek to improve clinical, functional *and* population health outcomes by fostering coordination and integration.

We see the OCDPA model as being complementary and supportive of the MOHLTC's framework. The diagram used to illustrate the Framework shows a large circle of functions that impact on community (e.g., health public policy, personal skills and self-management, and delivery systems) and a circle of resulting outcomes (e.g., activated communities, informed individuals, and prepared practice teams). Between these two circles exist "productive interactions and relationships." The model in this report (Appendix 4), illustrates a system of the spheres of productive interactions and relationships between program and policy implementation and knowledge development, monitoring, translation and exchange.

The systems approach proposed will facilitate improved clinical functional and population health outcomes by fostering productive interactions and relationships between health care and community organizations, individuals and families.

Other Jurisdictions

This is a favourable time for the development of a chronic disease prevention strategy in Ontario, as there are valuable opportunities for cross-provincial learning with jurisdictions such as Manitoba. A longer-term vision could see the system expanded to add depth to the Pan-Canadian Healthy Living Strategy and, in collaboration with the Chronic Disease Prevention Alliance of Canada, act as a valuable reference tool for the Public Health Agency of Canada as it further develops its Integrated Strategy for Healthy Living and Chronic Disease.

Ontario has already benefited from early lessons from Manitoba. In Manitoba, a key lesson is that organizations are hungry to align their investments to achieve greater impact, yet need two early conditions for success. One condition is that organizations have a common vision or template for a "system." A second condition for success is that each organization can not only see itself as a player in the system, but can maintain its identity and visibility while providing unique contributions to a meaningful, collective effort (personal communication, Dexter Harvey, March 2006)

e) Priorities for Action

The Alliance is committed to exploring how a prevention system can address some of the key health challenges facing our society, such as tobacco, obesity, physical inactivity, and nutrition. We are also committed to addressing risk factors for chronic disease such as alcohol and other drugs, mental illness, sexual behaviours, physical environments (the built environment and access to healthy foods) and the underlying social determinants of health. The epidemiological arguments for all of these are clear.

The action plan of the Alliance is to “walk our talk” as a learning organization and to apply best available knowledge about system development. In essence, we propose to apply the “Plan, Do, Check, Act” cycle to our strategy. This will enable a staged approach, in which we take advantage of early system development and cross-jurisdictional learnings to ensure continuous quality improvement.

Thus, the OCDPA has established four priorities for action. For each of these priority areas, the OCPA proposes to undertake knowledge exchange, as well as planning and coordination and advocacy for resources and training. The Alliance will act as a convener, bringing interested parties together and building a commitment to support the six system elements (capacity development, best practices identification, research, surveillance/monitoring, evaluation, and program and policy implementation).

1. **Tobacco:** Recognizing the Smoke-Free Ontario plan is well developed, the Alliance is committed to supporting this work and ensuring that implementation receives the focused attention required. Furthermore, the OCDPA is proposing to contribute to Smoke-Free Ontario by bringing to the initiative improved planning and coordination. The OCDPA would also take the lead in identifying what works and how they could be applied to other risk factor areas.
2. **Healthy Active Living:** The Alliance is calling upon its Ontario partners to quickly ramp up action on addressing healthy and active living, a second priority of the Ministry of Health Promotion.²⁰ Drawing upon learnings from the tobacco experience and risk behaviour programs in other jurisdictions (e.g. Finland and multiple risk factor demonstration projects such as the Stanford Five Cities study) will enable the OCDPA to build a better organized and more effective prevention system. The OCDPA’s goal would be to demonstrate how implementation of its system approach in the early stages of an initiative increases efficiency and effectiveness.

²⁰ Although healthy and active living is a single priority for the Ministry of Health Promotion, it incorporates action to address healthy eating (nutrition and food access) and physical activity.

3. **Inter-risk Factor Knowledge Exchange:** The OCDPA would like to serve a planning and coordination role in looking across domains or risk factors. In this manner, lessons from one arena could be identified and insights transferred to other domains. Activities would include promoting common high-impact interventions that cut across risk factors (with or without customizing) and developing a system-level research agenda. These activities would make possible the development and implementation of inter-risk common messaging.

4. **Integration of local coalitions and other resources:** Working with local partners and Alliance members to broker improved coordination or integration of local coalitions and other resources addressing chronic disease prevention (e.g., the Ontario Heart Health Program/Taking Action for Healthy Living, tobacco, cancer and healthy community coalitions, and community-based staff of provincial and national NGOs).

Ideally pilots would build on currently existing assets in each of the six system elements. OHHP/TAFHL would be an ideal choice as one of these pilots, as programs are located across the province, act at the local level, have provincial structures, and have been evolving from a heart health focus to a more general chronic disease prevention focus.

As noted above it is proposed that OCDPA members ramp up their activities in healthy and active living. It would be helpful to use this commitment as an opportunity to understand the components of the system, clarify functions and systems requirements, and evaluate how planning and coordination can, in fact, support system development. This process could serve as a “pilot” and with appropriate resources the experience could help to refine the system and identify learnings to apply to other priority areas. When the system is in place, we envisage it will be expanded to encompass additional substantive targets.

3. Call to Action

The next steps for the OCDPA are:

- 1) The OCDPA will ask alliance members to endorse the system concept and start working in new ways.
- 2) The OCDPA will ask the Ministries of Health Promotion and of Health and Long-Term Care to demonstrate recognition of the proposed system and Alliance functions.
- 3) The OCDPA will begin planning to move the system forward.

Activities that will be undertaken to move the system forward will include:

- Dissemination of this paper, leading to discussions among OCDPA members for the purpose of refining activities and approaches and creating a work plan;
- Hosting a meeting with CEO's from the NGO's in order to gain consensus to move forward on a collaborative basis to address the Ministry of Health Promotion's priorities;
- Convening identified system element groups;
- Identify pilot work and assess current system elements (possibly concurrent with other program reviews);
- Hosting a meeting with governments to further develop a shared system plan;
- Communicating the system plan to other potential partners; and
- Exploring the development of a broad health promotion strategy for Ontario to encompass focus areas beyond tobacco and healthy active living, such as the determinants of health and alcohol and other drugs.

To begin the process, the OCDPA has sought funding for 2006/07 to convene stakeholders from the communities of practice and each of the pilot areas. In large and small group discussions, the members would begin developing in greater detail pilots implementing the system plan. This information would form the basis of planning for the months to come.

By adopting this system approach a huge leap forward in collaborations, communications, synergies, learnings and coordination will take place. This is a challenge and an opportunity we cannot afford to pass by. We can indeed be the system if we are willing to take up the call. The time is now. Bold action is required. The Alliance is calling upon its own members, the Ontario Government, the Federal Government and other partners to step up to the challenge.

Acknowledgements

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for providing leadership throughout the development process, and to all the core partners of OCDPA for providing input to the final documents.

And finally to the many people who attended the Think Tanks, took part in the expert interviews, the November 21 and 23 planning and conference days, thank-you. Your contributions shaped and created the system to prevent chronic disease and is greatly appreciated.

References

Anderson LM et al., Evidence-based Public Health Policy and Practice: Promises and Limits. *Am J Prev Med* 2005; 28 (5 Suppl):226-30

Chan BTB. Finding the right balance between evidence for judgment and evidence for quality improvement: Healthcare Management Forum : Spring 2006

Chronic Disease Prevention Alliance of Canada. *Making It Work: Integration in Action*. Final Report, February 28, 2006. <http://www.cdpac.ca/>

From Vision to Action: A Plan for the Ontario Agency for Health Protection and Promotion. Final Report of the Agency Implementation Task Force. March 2006. http://www.health.gov.on.ca/english/public/pub/ministry_reports/agency_06/agency.html

Edwards, N, Mill JE, Kothari, A. Multiple Intervention Research Programs in Community Health. *Canadian Journal of Nursing Research*. 2004;36(1), 40-54.

Green LW. From Research to "Best Practices" in Other Settings and Populations. *Am J Health Beh*. 2001; 25(3): 165-78

Green LW. Public Health Asks of Systems Science: To Advance Our Evidence-Based Practice, Can You Help Us Get More Practice-based Evidence? *AJPH* 2006; 96(3):406-9

Green, LW, Richard, L, Potvin L. Ecological foundations of health promotion. *American Journal of Health Promotion*, 1996; 10: 270-281

Glasgow et al. Why Don't We See More Translation of Health Promotion Research to Practice? Rethinking the Efficacy-to-Effectiveness Transition. *AJPH* 2003; 93(8):1261-7

Haydon, E, Roerecke, M, Giesbrecht, N, Rehm, J & Kobus-Matthews, M. *Chronic Disease in Ontario & Canada: Determinants, Risk Factors & Prevention Priorities*. Prepared for the Ontario Chronic Disease Prevention Alliance and the Ontario Public Health Association. November 2005,

Kahan B., Goodstadt, M. The Interactive Domain Model of Best Practices in Health Promotion: Developing and Implementing a Best Practices Approach to Health Promotion. *Health Promotion Practice* 2001; 2(1): 43-67.

Knowledge Exchange in Chronic Disease Prevention, Health Promotion. Proposed Roles of the Ontario Chronic Disease Prevention Alliance: A Facilitator

of Knowledge Exchange. Submitted to OCDPA Core Members. Submitted by the Knowledge Exchange Working Group of the Alliance. May 2006

McLean S, Feather J, Butler Jones D. *Building Health Promotion Capacity. Action for Learning, Learning from Action.* UBC Press, 2005

Mol AM. Proving or Improving: On Health Care Research as a Form of Self-Reflection. *Qual Health Res* 2006; 16(3):405-14

Naylor D. National Advisory Committee on SARS and Public Health, *Learning from SARS: renewal of public health in Canada: a report of the National Advisory Committee on SARS and Public Health.* [Ottawa]: Health Canada; 2003. [online]. Accessed September 7, 2005 from: <http://www.phac-aspc.gc.ca/publicat/sars-sras/naylor/>.

Potter C, Brough R. Systemic capacity building: A hierarchy of needs. *Health Policy and Planning* 2004; 9(5):336-45

Revitalizing Ontario's Public Health Capacity: The Final Report of the Capacity Review Committee. May 2006.
http://www.health.gov.on.ca/english/public/pub/ministry_reports/capacity_review06/capacity_review06.html

Rosenheck RA, 2001, Organizational process: A missing link between research and practice. *Psychiatric Serv* 2001; 52(12): 1607-12

Rychetnik L et al. A glossary for evidence-based public health. *J Epi Comm Health* 2004 58(7):538-45

Speller, Wimbush, Morgan, 2005, Evidence-based health promotion practice: how to make it work. *Promot Educ* 2005; Suppl 1: 15-20, 46, 56-7 passim

The theory and practice of knowledge brokering in Canada's health system. Ottawa, ON: Canadian Health Services Research Foundation: December 2003.

The World Health Report 2002 -- Reducing Risks, Promoting Healthy Life.

Appendices

1. Ontario Assets and Challenges
2. The Ontario Chronic Disease Prevention Alliance
3. The Ministry of Health Promotion's new Strategic Framework
4. The Ontario Chronic Disease Prevention and Management Framework
5. Glossary of Terms
6. Literature Review

Appendix 1

Ontario: Assets and Challenges

i. Assets

Ontario is the most populous province in Canada with a long history of prevention initiatives directed at chronic disease and other health and social problems. These resources in Ontario include networks, programs, strategies, and local capacity, leaders in health promotion and disease prevention, and research expertise.

A few examples are offered to illustrate the extensive assets and expertise available to reduce chronic disease in this province:

- An extensive public health system with a growing emphasis on population-level interventions and awareness of the social determinants of health;
- Significant local delivery of prevention interventions (e.g., through public health units, community coalitions, community health centres, hospital-based programs);
- Community commitment, as demonstrated in the success of community heart health coalitions in every public health unit district, FOCUS programs to prevent alcohol and substance abuse, cancer coalitions, tobacco coalitions, and healthy community coalitions;
- Strong non-governmental organizations: the 23 programs belonging to the Ontario Health Promotion Resource System (OHPRS) that provide training, consultation, print and electronic resources, partnership building opportunities and referrals to those promoting health, and charitable organizations addressing chronic diseases such as the Heart and Stroke Foundation of Ontario, the Ontario Lung Association, and the Ontario chapters of the Canadian Cancer Society and the Canadian Diabetes Association;
- Mandatory programs within the public health system;
- Commitment at the provincial level for provincial strategies focusing on specific chronic diseases;
- Establishment of the new Ministry of Health Promotion and new Ontario Agency for Health Protection and Promotion;
- Champions and leaders who are dedicated to reducing chronic disease in Ontario;
- Large NGO's which have their national head offices in Ontario (e.g., Heart and Stroke Foundation of Canada, Canadian Cancer Society, Canadian Diabetes Association, Centre for Behavioural Research and Program Evaluation);

- Support to a surveillance and monitoring system in its embryonic state, that needs provincial coordination; and
- Well-established research capacity, expertise and methods, including research centres that devote resources to the study of chronic disease epidemiology, prevention and intervention.

ii. Challenges

Ontario is a large and complex province, with a population that is larger than some countries. Its assets for addressing the challenges of chronic disease prevention are numerous, as indicated above; nevertheless, prevention services and efforts are fragmented.

Ontario must invest in an integrated, community-based chronic disease prevention system with appropriate capacity to provide a preventive dose at a population level. There are a number of challenges that need to be addressed if our response to chronic disease is to become more effective and efficient, for instance:

- Provision of quality prevention services in a timely manner to both large urban centres and rural areas presents an ongoing challenge
- Access to high quality low cost local data on chronic diseases and risk factors in order to support planning, evaluation and field research;
- Coordination and learning between cross-risk factor and multiple disease programs;
- Sufficient human resource capacity in public health with a systematic coordinated response; and
- Enhancement of knowledge exchange, so that there is the capacity to:
 - facilitate efficient evaluation of promising practices (i.e., mechanisms to allow us to learn from practice); and
 - Ensure that evidenced-informed interventions are given higher priority in both funding and programming.

Appendix 2

The Ontario Chronic Disease Prevention Alliance

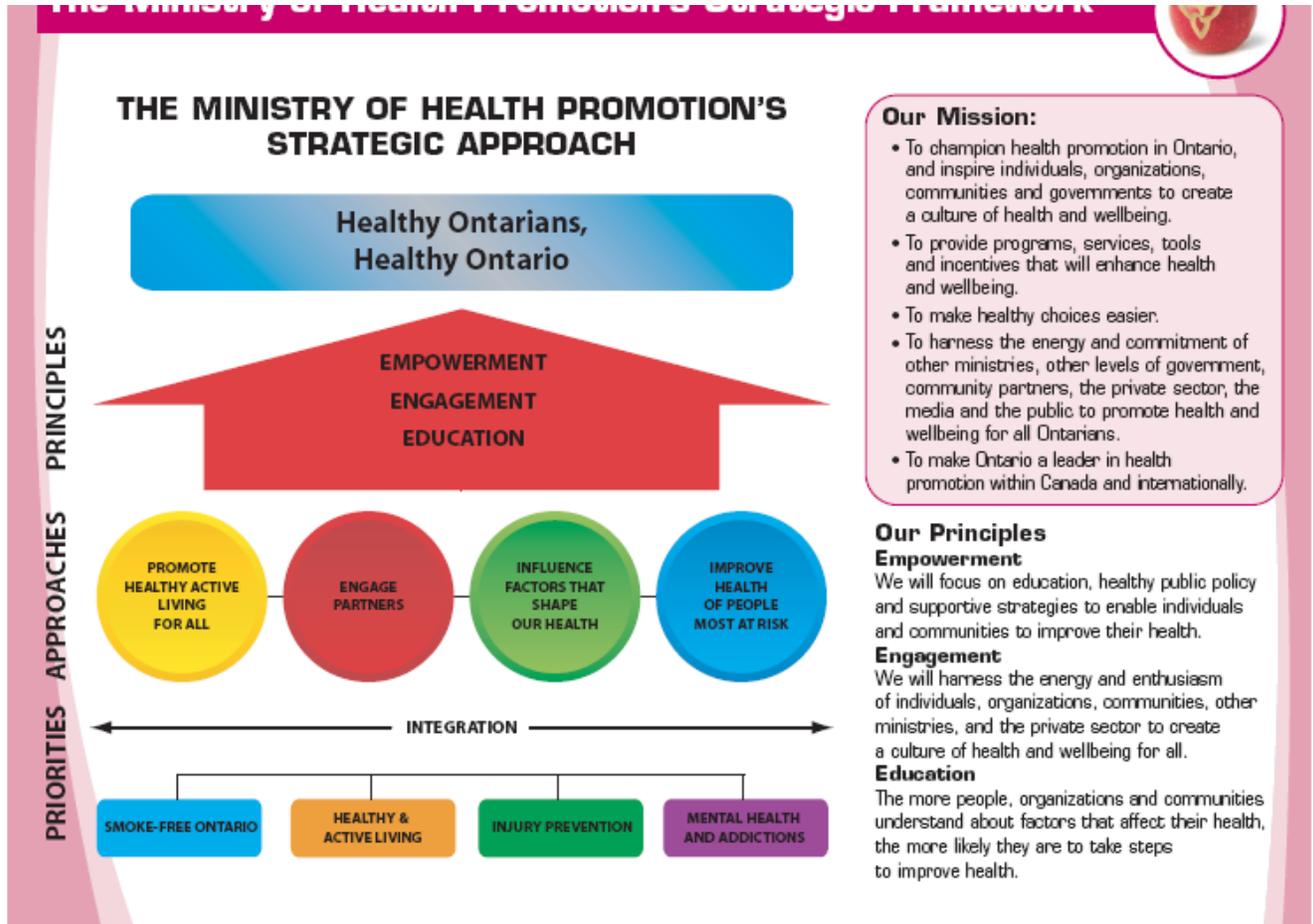
The Ontario Chronic Disease Prevention Alliance is a collaborative group of organizations whose mission is to improve the health of **Ontarians** through leadership that supports **collaborative action** to promote **healthy living** and to address the **determinants of health** necessary for **chronic disease prevention**. **The OCDPA is** committed to work together with governments on a chronic disease prevention strategy.

The OCDPA partnerships began in February 2003. The current partnership includes:

- Canadian Arthritis Society,
- Canadian Cancer Society, Ontario Division,
- Canadian Diabetes Association,
- Cancer Care Ontario,
- Centre for Addiction and Mental Health,
- Heart and Stroke Foundation of Ontario,
- Ontario Prevention Clearinghouse,
- Osteoporosis Canada.
- The Kidney Foundation,
- The Lung Association,
- The Ontario Public Health Association

The OCDPA recognizes an urgent need for a comprehensive, coherent, well-resourced, systematic effort to prevent chronic disease at a population level in Ontario. There is a historically unique opportunity to make a high pay off investment in prevention, and to take advantage of momentum to create a prevention system.

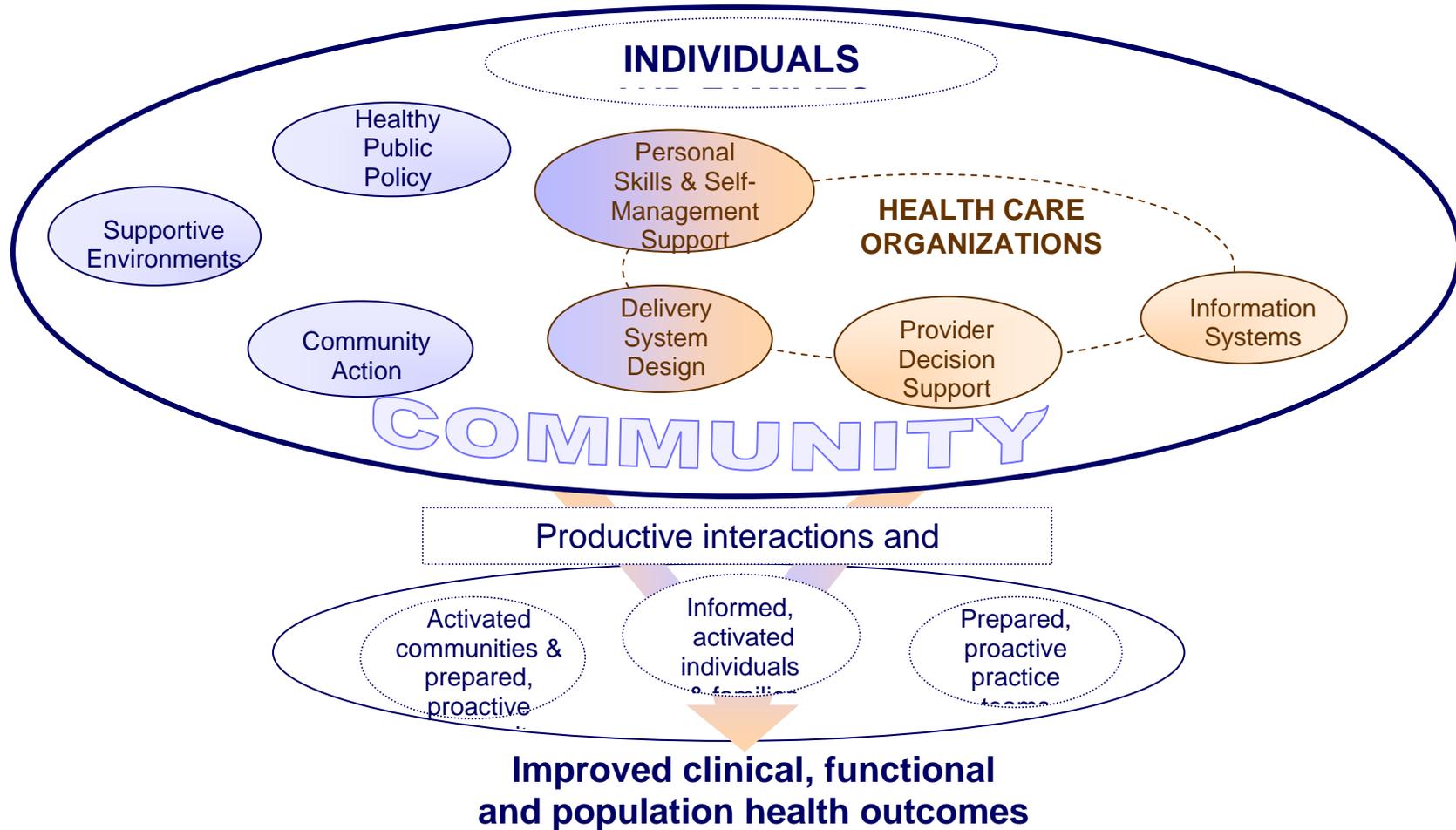
Appendix 3



Appendix 4

Ministry of Health and Long Term Care
Chronic Disease Prevention and Management Framework Diagram.

The CDDM Framework



Appendix 5 **Glossary of Terms**

Determinants of Health²¹

The range of personal, social, economic and environmental factors that determine the health status of individuals or populations.

Integrated Chronic Disease Prevention²²

Although a marked elevation of a single risk factor significantly predicts an individual's ill health, the societal burden from chronic disease results from the high prevalence of multiple risk factors related to general lifestyles. Therefore, community-based activities are required with an integrated public health approach that is targeted to populations in addition to those at high risk.

- Within the context of chronic disease prevention and control, the term integration has several meanings. The classical definition involves determination and confrontation of common risk factors, rather than the process of attacking many individual diseases separately.
- Integrated chronic disease prevention programs aim at interventions that address common risk factors through the health system and other existing community structures, rather than an outside prevention program.
- Another meaning of the term integration for chronic disease prevention and control denotes a comprehensive approach which combines varying strategies for implementation. These include policy development, capacity building, partnerships, and informational support at all levels.
- Integration calls for inter-sectoral action to implement health policies – another aspect of integration needed to address the major determinants of health that fall outside the remit of the health system.
- Integration also refers to efforts to combine population and high risk approaches by linking prevention actions of various components of the health system, including health promotion, public health services, primary care and hospital care.
- Integration does not preclude meeting the unique needs of particular populations. However, when chronic disease prevention and control programs have been established by addressing different diseases, eventually a balance among them should be achieved.

Population Health Approach²³

In a population health approach, taking action on the complex interactions between factors that contribute to health requires:

²¹ www.moh.govt.nz/moh.nsf/0/15f5c5045e7a1dd4cc256b6b0002b038

²² Glossary of Terms. International Showcase Day: Chronic Disease Prevention

²³ <http://www.phac-aspc.gc.ca/ph-sp/phdd/determinants/index.html#determinants>

- a focus on the root causes of a problem, with evidence to support the strategy to address the problem;
- efforts to prevent the problem;
- improving aggregate health status of the whole society, while considering the special needs and vulnerabilities of sub-populations;
- a focus on partnerships and inter-sectoral cooperation;
- finding flexible and multidimensional solutions for complex problems; and
- public involvement and community participation.

Primary Prevention²⁴

A set of interventions, including the detection and control of risk factors, designed to prevent the first occurrence of non-communicable diseases among people with identifiable risk factors.

²⁴ Glossary of Terms. International Showcase Day: Chronic Disease Prevention

Appendix 6

Literature Review

The result of the review of studies and Ontario reports since 2000 shows consistent recommendations for a comprehensive, integrated approach to promote a healthier Ontarian population.

In particular, the Ontario Heart Health Network renewal plan through their **Continuation Working Group (CWG)** in 2003, proposed that local heart health coalitions in Ontario become a stable part of a more co-ordinated system to prevent chronic disease. The CWG proposed a vision to build on the current strengths in Ontario to create a system with provincial and local elements that would take a multi-factorial, multi-sectoral approach based on partnerships and co-ordination among stakeholders.

The model of the Ontario Stroke Strategy (OSS), funded by the Ministry of Health and Long-Term Care builds on an innovative approach to a continuum of care, with health promotion as an integral piece of this continuum. Hospitals funded to provide stroke care are not funded to do health promotion directly, but are mandated to work with their communities to ensure that stroke prevention happens. This OSS funding required enhanced collaboration across the health care continuum.

The Centre for Behavioural Research and Program Evaluation of the National Cancer Institute of Canada developed the 2002 report **From Stroke Prevention to Health Gain**.²⁵ In this report the authors state that 'assessment of the best available research evidence supports the effectiveness of comprehensive, community based prevention on knowledge, behaviour and important intermediate health outcomes'. They add that 'a population approach is not only where the greatest health gains are achievable, but is the only strategy which can sustain the gains made'. Other recommendations of this report included:

- enhancing Ontario's surveillance program to ensure it adequately supports the planning, design monitoring, and assessment of the health gain strategy;
- build common evaluation processes across all chronic disease prevention and health promotion activities; and
- develop a strategic research agenda to identify best practices in population-based chronic disease prevention.

²⁵ Mills, C. Manske, S. Dobbins, M. Cameron, R. From Stroke Prevention to Health Gain, Final report. Centre for Behavioral Research and Program Evaluation National Cancer Institute of Canada, September 2002.
http://www.opc.on.ca/english/our_programs/hlth_promo/project_ini/strk_prevent/Stroke_Prev_Rprt.pdf

In addition, the report recommends investing in an integrated, community-based chronic disease prevention system with appropriate capacity to provide a preventive dose at a population level. This includes providing them with central policy, technical information, media and social marketing support.

Concurrent with the development of the Health Gains report, another 2002 study called **Community Coalitions Capacity to Incorporate Stroke/Chronic Disease Prevention: Issues and Opportunities**, explored community coalitions across Ontario and their capacity to support stroke and chronic disease prevention.²⁶ Although recognizing the fragmentation in the current system, there is a readiness and openness in a maturing primary prevention infrastructure to form a network for the primary prevention of chronic disease.

In 2003, the **OCDPA Environmental Scan**²⁷ was developed collaboratively between the OCDPA and Cancer Care Ontario to describe the chronic disease system elements in Ontario. The scan included a chronic disease risk factor environmental scan that focused on tobacco, nutrition/healthy eating/overweight, physical inactivity/active living and alcohol. Select members of the Alliance provided direction and input into the scan. The scan identified a multitude of programming but little evidence of cross initiative coordination or collaboration.

A similar scan was conducted by OCDPA in 2005 but it was broadened to include the additional chronic disease risk factors/conditions including the determinants of health, environment, mental health, other drugs, ultraviolet radiation as well as chronic disease-based strategies, determinants of health programs and system supports. The 2005 environmental scan of existing current chronic disease prevention activities, programs and services in Ontario was reviewed as background planning information for the Alliance, MOHLTC and others upon request (through OPHA - the Alliance secretariat). As with the 2003 scan, there is evidence of a complex array of capacities within system elements upon which a CDPM Framework can be built.

In another report prepared for the OCDPA by the Centre for Addiction and Mental Health (CAMH), the authors provide epidemiological data on chronic disease including the economic costs; the socio-behavioural risks of chronic disease; individual and population level models of health and consider models of chronic disease prevention. From this analysis, some of the recommendations include the need to incorporate multiple determinants of health such as risk factors, as well as giving attention to alcohol, other drugs, and mental illness. Furthermore, it

²⁶ Community Coalitions Capacity to Incorporate Stroke/Chronic Disease Prevention: Issues and Opportunities. Ontario Prevention Clearinghouse, Stroke Prevention Project, June 2002.

²⁷ Lyons, Christine and Kung, Ann-Marie. Informing Directions for Chronic Disease Prevention and Management in Ontario; Summary of Potential Applications to the Forthcoming Ontario Chronic Disease Prevention and Management Framework and Ontario Chronic Disease Prevention Alliance Collaboration Efforts, 2005.

advocates for a coordinated effort of organizations working at the same level (e.g., community, regional or provincial level –horizontal - but also, to build in vertical coordination), so that provincial partners support and work collaboratively with community affiliates.

Cancer is a leading health issue in Ontario. In 2002 it was estimated that over 52,000 Ontarians would be diagnosed with and approximately 24,000 would die from cancer. Cancer Care Ontario was asked by the Ministry of Health and Long-Term Care to lead the development of a long term plan for cancer prevention and early detection in Ontario. The Cancer 2020 report was a call to action, action plan and framework for monitoring progress in reducing cancer incidence and mortality. About half of all cancer deaths are related to tobacco use, diet and physical inactivity. Specific prevention targets were set for tobacco use reduction, diet, weight, physical activity and alcohol consumption as well as environmental carcinogens including ultraviolet exposure.²⁸

The 2004 Chief Medical Officer of Health's Report raised concern about the 'epidemic of overweight and obesity in Ontario and set out a plan to promote healthy weights in Ontario.²⁹ In 2003, about 57% of Ontario men and 42% of Ontario women were overweight and obese.³⁰ Overweight and obese people have a higher risk than people of a healthy weight of developing type 2 diabetes, coronary heart disease and stroke, hypertension, osteoarthritis, cancer such as breast, colon, prostate; and gallbladder disease.³¹ In her report, Dr. Sheela Basrur calls on "all levels of government, the health sector, the food industries, work places, schools, families and individuals to become part of a comprehensive province-wide effort to change all the factors that contribute to unhealthy weight." (reference here with page)

The 2006 Health Council of Canada released their report "*Health Care Renewal In Canada: Clearing The Road To Quality*" in 2006. It provided reinforcing evidence for population health as one of three strategies or "pathways" to address the current health care issues in Canada. Specifically, the Council recommends three elements for a strategy to improve population health:

1. Chronic diseases:
 - Invest in programs to prevent chronic diseases, ensuring that strategies are integrated with the work of primary health care teams; and
 - Modernize the management of chronic diseases by ensuring that health care teams have access to information tools to help them manage patients with complex disease in the safest, most effective and most appropriate way possible.

²⁸ http://www.cancercare.on.ca/index_cancer2020.htm

²⁹

http://www.health.gov.on.ca/english/public/pub/ministry_reports/cmoh04_report/cmoh_04.html

³⁰ Chief MOH report. Healthy weights, healthy life.

³¹ Ibid

2. Healthy living strategies:
 - Collaborate on measuring meaningful progress towards reaching Canada's public health goals; and
 - Initiate a dramatic shift in funding priorities to stimulate progress in healthy living and to meet public health goals.
3. Health inequalities:
 - Take an aggressive and collaborative approach to reducing health inequalities by setting clear targets with an emphasis on improving the health and well-being of children and Aboriginal groups; and
 - Recognize that the health care system is relatively powerless to overcome those effects on its own. We need broad public policy to respond to the health effects of inequality and, to measure progress, we need high-quality data linking health outcomes with the social and economic factors that influence health.

In reviewing several existing chronic disease programs and frameworks, two were particularly informative. The Alberta Healthy Living Framework document was very helpful in the overall layout and scope of components and the CDPAC Logic Model was useful in terms of functions.